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LEPIDOPTERIST'S
CALENDAR.

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The Lepidopterist's calendar:giving the



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First edition

THE
LEPIDOPTERIST'S
CALENDAR:

GIVING THE TIME OF APPEARANCE OF THE
BRITISH LEPIDOPTERA,
AS FAR AS THEY ARE KNOWN,
IN THE
IMAGO, LARVA, AND PUPA STATES;
WITH A CLASSIFIED ARRANGEMENT OF THE
LARVÆ - FOOD.

BY

JOSEPH MERRIN, 1820 - 1904,

LONDON :

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INTRODUCTION.

To know how to do a thing is a great step towards its accomplishment; but to know exactly *when* to do it, is often the one thing needful to insure success. This applies with great force to the pursuit of Natural History, and particularly to Lepidoptera. The regularity with which, at certain definite dates, most species of Butterflies and Moths ordinarily appear, is something almost marvellous; and many species are not obtained in fine condition through inattention to the time of their advent, while some may be missed altogether. The annual loss to Science in specimens and knowledge from Collectors not looking after Larvæ at the only times when they are to be found cannot be estimated, but it must be very great.

The want of a work giving in a concise form the necessary information where, and how to find Lepidopterous Insects each month, has long been felt, and particularly so of late years, when the attractions of the study of the Lepidoptera have become so largely recognized. But although there were many far more able Entomologists than the Author, who might have prepared such a work, nothing was done; and he has, therefore, made the attempt. In this, he has received the invaluable assistance of several of our ablest Entomologists, including Mr. F. Bond, Mr. P. H. Vaughan, Mr. J. W. Douglas, Rev. Joseph Greene, Rev. H. Harpur Crewe, Mr. Reading, Mr. Tearle, and others, to whom he desires to express his grateful thanks.

Although every care has been taken in giving the dates of appearance, it is evident that some little allowance must be made for the difference of locality, and for our variable climate, and other causes, which militate against an unerring accuracy being always attainable. The reader is, however, requested to remember, should he see anything stated which is new to him, or hardly in accordance with his own opinions, that it has not been lightly adopted, but that it rests on the authority of experience of a much longer period than the Author's, and over a far more extended area.

Time and place being the main things to be indicated in a Calendar, the order of the various families of Insects is of course much broken into ; and many species in different stages are brought into contiguity, whose simultaneous appearance may have been before unsuspected. Most readers of the Calendar will be perfectly familiar with the leading characters of all the chief families ; and it is therefore unnecessary to refer to them.

The necessity of botanical knowledge for the successful pursuit of Entomology has always been undisputed. Without it, the food-plants cannot be ascertained ; and unless a large portion of the Collector's operations is devoted to rearing species through all their stages, neither his collection nor his knowledge can make that satisfactory progress which they will make if this more occult part of Lepidopterology is steadily pursued. The large number of "unknown Larvæ" may doubtless be greatly reduced by a more universal pursuit of this branch of the study. The time and food of several appear in the Calendar, which have not before been published except in an isolated form. "Low plants" will probably be found to yield the largest per centage of these mysterious strangers ; and all through the year they should receive the special attention of the energetic student.

With respect to the plan of the work, it may be observed that the nomenclature adopted is that of Stainton. In giving the times of appearance of the Larvæ it has not been thought desirable to increase the bulk of the work by specifying the dates which would include the whole period of Larvæ-life; the time chosen has, therefore, been when the Caterpillar is nearly full-fed, except when it is hatched in the autumn and feeds up in the spring, when the two dates are given. The food of the Larvæ has generally been ranged under a heading when more than one species feed upon it. This grouping of the food will much facilitate the capture of the Larvæ, by indicating at a glance the various species which feed upon a particular plant at a particular time; while identification is much facilitated. The time given for the Imagos includes the earliest at which they appear, in ordinary seasons, so that the Collector may be able to secure them in the best condition.

In some months, the number of Insects might have been much increased if forward seasons were taken as the guide; but it was thought better to take the average of ordinary years. If a season is unusually backward or forward, a slight allowance is easily made. Space for memoranda, for this and other purposes, has been provided in the alternate blank pages, which arrangement has been thought preferable to the ordinary system of inter-leaving.

It is hoped the brief notes under most of the months, will be found to contain some useful hints; and that the Calendar, altogether, will prove a useful TIME-GUIDE to the Lepidopterist throughout the year.

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EXPLANATION OF CONTRACTIONS.

| | | |
|------|---------------|--|
| b. | | At the beginning) |
| m. | | In the middle } of a month. |
| e. | | At the end |
| h. | | Hybernated |
| s. | | Sometimes |
| r. | | At the roots of a plant |
| fl. | | On, or in the flowers |
| he. | | On heaths or moors |
| ma. | | In marshes or fens |
| ♂ | | Male |
| ♀ | | Female |
| 2... | | The second appearance in the year as Imago, or full-fed Larvæ. |

* Wherever "2" is appended to a species of *Lithocolletis*, it is intended to apply equally to all of the same genus which immediately follow.

[CORRECTIONS AND ADDITIONS.

P. 36, l. 4 from the bottom of the first paragraph for "when the Larvæ hatch in the autumn," read "after the Larvæ have hatched in the autumn."

Add to April and May Larvæ, *M. Furuncula* and *M. Literosa*, on *Alopecurus agrestis* (slender fox-tail grass.)

Dele *M. Euphorbiata* from the Imagos of May.

Add to May Larvæ, *L. Francillana*...In stems of hemlock.

Add *Clostera Anachoreata* to the summer Larvæ feeding on poplar, sallow, &c., and to the Imagos of August. This species formerly figured in the British lists, but was struck out, as it did not appear for several years; it must now be restored, as Dr. Knaggs last summer took eleven Larvæ, out of which he bred ten perfect insects. Its habits are the same as those of *C. Curtula* and „ *Reclusa*.

Add to June Imagos, *H. Wavaria*, e ; and to July, *E. Trilinaria*, and *H. Proboscidalis*, s, 2.

The Lepidopterist's Calendar.

IMAGOS.]

JANUARY.

P. Pilosaria

H. Rupicapraria

E. Fenestrella, to Dec.

LARVÆ.]

| | | |
|-----------------------------------|-------------------------------------|--|
| O. Filigrammaria, to May | On bilberry | A. Gentianana, to Mar. In teazles |
| E. Elutella | Hazel nuts, figs, chocolate, &c. | OE. Pseudo-spretella, to Mar. On dried peas, &c. |
| " Ficella | Figs | E. Fenestrella, to { On waste sub- Dec. } stances in houses |
| M. Ceratoniae | Chestnuts, &c. | B. Grandipennis, to Mar. Furze |
| O. Antiquana | In roots of Stachys arvensis | N. Aurella, to Dec. ... Bramble |
| A. Æneana | In do. of ragwort | T. Rusticella.....Cloth, &c. |

Several more Larvæ might have been given under this month, but as they are at this time mere "juveniles," and would require repetition each month until they are full-fed, they have been omitted until they approach that mature condition. The reader, if he desires occupation at this time, may therefore turn to the succeeding two or three months, and search the plants, &c., there indicated for Larvæ. Or he may continue his winter operations of Pupæ hunting by tree-digging, mosa-searching, &c.

IMAGOS.]

FEBRUARY.

| | | | |
|---------------|----------------|-----------------|--------------------|
| E. Lanestris | P. Pilosaria | H. Rupicapraria | T. Pellionella, to |
| T. Stabilis | N. Hispidaria | ," Leucophearia | Nov. |
| ," Instabilis | H. Progemmaria | C. Fagella | |

Sometimes if tree-trunks or hollow trees are carefully examined in the milder days of this month, *A. Escularia*, *H. Rupicapraria*, and *H. Leucophearia* may be found. Among the hibernating insects met with this month are *G. Rhamni*, *V. Io*, *S. Satellitia*. Some few of those which ordinarily do not assume the imago state until March, appear this month, occasionally, if the winter is mild.

Most Lepidoptera, except the many hibernated species, out thus early, have apterous females. *Pilosaria* ♂ come freely to light; ♀ occur on trunks of elm and other trees. *N. Hispidaria* is local, and seems confined to oak trunks.

H. Progemmaria and *Rupicapraria* occur freely on hedges. The ♀ may generally be detected sitting on the twigs by the ♂ fluttering round. Box carefully, or they will fall to the ground, and be lost. The ♀ of *H. Rupicapraria* may, however, be often obtained by beating hawthorn hedges, with the aid of a lantern, at night, into an open umbrella. *H. Leucophearia* ♂ often flies by day; the ♀ hides in oak trunks, and is a puzzle to see.

LARVÆ.]

| | | | |
|---------------------|----------------------------------|----------------------|-------------------------------------|
| B. Perla..... | On lichens on walls | E. Elutella | Hazel nuts, figs, chocolate, &c. |
| ," Glandifera | Ditto | | |
| A. Basilinca | Various low plants | C. Falsellus, to May | In moss |
| L. Turca | Grasses in woods | O. Antiquana | In roots of <i>Stachys</i> |
| L. Straminea | Grasses | | arvensis |
| A. Lucernea | Dandelion, & other low plants | O. Birdella, to May | In grass stems |
| P. Empyrea | Pilewort, &c. | T. Rusticella..... | Cloth, &c. |
| S. Anomala | Grasses | H. Bracteella,to Ap. | Decayed wood |
| C. Munitaria | Groundsel | A. Goedartella, do. | In the bark of birch, alder, &c. |
| M. Cribrum | In dead thistle stems | C. Farinatella | Scotch fir |

All the Larvæ feeding on grasses, low plants, &c., are best found in the evening, with the aid of a lantern. The edges of ridings in woods, hedge-banks, &c., should be so examined on mild evenings.

In addition to the Larvæ enumerated, the following have begun to feed:—*L. Megera*, on grasses; *T. Pronuba* and *Orbona*, on chickweed; *X. Hepatica*, on grass, chickweed; *C. Bilineata*, chickweed, dock. *C. Cubicularis* may be found in corn ricks. The Larva of *C. Suffumata*, which is full-fed in the autumn, turns to a Pupa in this month and the next, without feeding.

FEBRUARY.

IMAGOS.]

MARCH.

| | | | |
|----------------|------------------|-------------------|------------------------|
| E. Lanestris | ,, Gracilis | N. Hispidaria | H. Pauperana |
| C. Flavicornis | ,, Miniosa | B. Hirtaria | A. Pygmaea, e |
| ,, Ridens | ,, Munda | A. Prodromaria | H. Fimbriana, e |
| T. Piniperda | ,, Cruda | T. Laricaria | T. Hyemana |
| T. Gothica | ,, Oleagina | H. Leucophearia | C. Fagella, e |
| ,, Leucographa | X. Lithorhiza, e | ,, Progeomaria | S. Avellanella, e |
| ,, Rubricosa | B. Parthenias | A. Escularia | T. Biselliella, to Oc. |
| ,, Instabilis | ,, Notha | L. Multistrigaria | B. Incongruella |
| ,, Opima | S. Illunaria | A. Badiata | E. Consortella |
| ,, Populeti | P. Pilosaria | P. Crenana | N. Aurella, to Aug. |
| ,, Stabilis | | | |

If the season be mild, great numbers of hybernated insects may now be found. D. Rubiginia is perhaps the best, and has several times been taken at sallows in Devonshire, &c.; and X. Petrileata formerly was not rare at Bristol. C. Flavicornis rests on twigs of birch, rarely on trunks, and resembles withered leaves. Crenana and Incongruella frequent moors, chiefly in the North.

The mild nights of this month, in forward seasons, often induce a considerable number of species to visit the sallow blossoms, which should be carefully searched with a lantern, or shaken over an umbrella, when the Moths may be easily boxed. Sometimes the net may be used to advantage when an individual on the wing hesitates where he shall settle down to supper. "Good things" are sometimes taken at the sallows, such as T. Leucographa, D. Rubiginia, &c., though there is always a large proportion of common insects. All the Teniocampae have a partiality for these pretty blossoms, or rather for the honey they contain, as well as many other members of that honey-loving family, the Noctuae.

Some few of the Geometrina and other families may also be expected at this early feast of Flora. The yellow male blossoms of the sallow are more attractive than the white silky female blossoms, apparently from their honey being more accessible. In the day-time many Moths may be taken, if well looked for—E. Lanestris, on trunks of trees, near the ground; T. Piniperda, on pines; C. Fagella and N. Aurella, on trees and palings; S. Pauperana and S. Avellanella among their food-trees, when larve, viz., the wild rose and birch.

D. Templi is fond of hiding among stones; X. Rhizolitha of resting on trunks of fir trees. B. Parthenias must be sought on sunny mornings in birch woods, and requires a quick hand to capture. The rare B. Notha frequents aspens. T. Hyemana and H. Fimbriana are at rest on oak branches; the latter requires a net put under the branches, as it darts to the ground when disturbed.

The following species, with several others which have hybernated, may be met with from February to May, and sometimes to June:—G. Rhamni, C. Cardui, V. Io, „, Antiope, „, Polychloros, „, Urtica, „, Atalanta, G. C-Album, A. Puta, C. Vaccinii, S. Satellitia, D. Rubiginia, H. Croceago, C. Vetusta, „, Exoleta, D. Templi, X. Rhizolitha, X. Semirunnans, „, Petrileata, G. Libatix, L. Cervinella, C. Miata, C. Psittacea, S. Dubitata, C. Gemmaria, H. Rostralis, E. Angustea, C. Mixta, G. Stigmatica, Z. Hepariella, „, Insignipennella, T. Caudella, C. Sulphurellum, P. Pterodactylus, D. Liturella, „, Pallorella, „, Umbellana, „, Arenella, „, Alstremeriana, „, Ocellana, „, Apulia, „, Propinquella, „, Albibinetella, „, Cherophylli.

LARVÆ.]

| ON BIRCH. | C. Farinatella | L. Testacea | MOSS. |
|-----------------------|---------------------------------|----------------|------------------|
| H. Barbalis | ,, Gysselinella, in a white web | A. Unanimis | E. Frequentella |
| A. Brockeela | O. Piniariella | M. Strigilis | C. Falsellus |
| CHICKWEED. | GRASSES. | HEATH. | PLANTAIN. |
| I. Lithargyria | L. Turca | M. Belgariaria | L. Lithargyria |
| C. Alsines | ,, Lithargyria | E. Plumbaria | C. Alsines |
| FIR. | Pudorina | PERLA | REED. |
| T. Variata [shoots] | Straminea | B. Perla | S. Ulvæ |
| R. Turionella, in the | ,, Pallens | ,, Glandifera | C. Phragmitellus |

MARCH.

LARVÆ.]

MARCH.

| | | | |
|-----------------------|-------------------------------|-----------------------|---------------------------|
| L. Impura..... | Sedge | S. Inconspicuella ... | Palings and trunks |
| M. Furva | Aira canescens | | of trees |
| C. Alsines..... | Dock, &c. | G. Luculella | In decayed wood |
| C. Munitaria, h | Groundsel | Œ. Minutella | Seeds |
| E. Plumbaria | Clover, &c. | A. Glaucinella | In bark of oak, &c. |
| A. Pinguinalis | Greasy horse cloths, &c. | L. Propinquella | Willow herb |
| P. Stratiotata | Stratiotes, Callitrichie, &c. | " Atra, black var. | Buds of apple |
| H. Barbalis, h | Oak | T. Marginea, h | Bramble |
| M. Cribrum | In dead thistle stems | E. Obscurella | Holcus mollis |
| T. Forsterana | Ivy, honeysuckle, &c. | P. Trigonodactylus | In coltsfoot flower stems |

VARIOUS PLANTS. A. Australis
N. Xanthographa R. Tenebrossa, h
X. Hepatica, h A. Lucerneæ
X. Rurea T. Fimbria, h

„ Interjecta „
„ Subsequa „
„ Orbona, h „
„ Ianthina „

P. Empyrea, h
A. Advena, h
C. Bilineata

In visiting the sallows a sharp look-out should be kept for Larvæ, who, like the Moths, are enjoying their supper, many species only venturing out to feed at night. A little tree and bush-beating into an umbrella may also be tried with advantage. During this month and the next E. Plumbaria may be found feeding among heath and clover. It will thrive on furze flowers. C. Culmellus and C. Tristellus should be sought for under damp moss; S. Olivalis seeks concealment in a white web on the under-side of ground ivy.

The Larvæ of most of the Leucanidæ may frequently be found by pulling up conspicuous tufts of C. Lanceolata or L. Pilosa, &c., and gently beating them. The breeding of the Bryophiles may be dispensed with, as the Imagos may be found at the right time (July and August,) on the spot where the Larvæ were seen.

A. Unanimis does not feed in the spring. It is full-fed at the end of the autumn, and conceals itself under loose bark on willows and poplars, or amongst the soil at their roots. Towards the end of March it comes out and wanders about for a few days, when it spins a slight cocoon, either under bark or at the foot of the tree, and assumes the Pupa state.

PUPÆ.]

The dead leaves of birch and oak will sometimes yield I. Pectinea, I. Muscalella, and I. Ochmanniella; and moss on rotten trees, L. Rubricollis. At the base of oak trees, under moss, T. Munda and H. Prasinana may be found.

MARCH.

IMAGOS.]

APRIL.

| | | | |
|----------------------|-------------------|------------------|-------------------------|
| P. Brassicæ, e | , Stabilis | , Irriguata | C. Fagella |
| " Rapæ | , Gracilis | , Dodoneata | S. Avellanella, b |
| A. Cardamines, e | , Miniosa | , Abbreviata | " Steinkellneriana |
| L. Aegeria, m | , Munda | , Coronata | S. Inconspicuella, b |
| P. Argiolus | , Cruda | , Vulgata | S. Douglasii |
| T. Rubi, e | V. Oleagina | E. Pumilata | I. Pectinea, e |
| D. Unguicula, c | X. Lithorrhiza | L. Lobulata | A. Cuprella, e |
| C. Bicuspis | C. Exoleta | , Polycommata | M. Purpurella |
| D. Coryli, e | C. Verbasci, e | M. Fluctuata | " Salopiella |
| D. Mendica, e | B. Parthenias | A. Badiata | " Semipurpurella |
| L. Carmelita, m | , Notha | , Derivata | " Unimaculella |
| P. Nubeculosa | R. Cratægata, e | P. Polygrammata | " Sparmanella |
| P. Trepida, e | S. Illunaria | S. Dubitata | S. Apicella, e |
| G. Ilicifolia, e | N. Zonaria | C. Suffumata | " Pyrella [e |
| E. Versicolora | O. Bidentata | P. Tetraquetrana | H. Vigintipunctatus |
| C. Ridens | B. Hirtaria, e | , Immundana | G. Velocella, c |
| A. Auricomæ, e | A. Prodromaria, b | , Crenana | " Ereticella, e [to Aug |
| N. Plecta, e | H. Abruptaria, e | H. Pauperana | D. Sulphurella, he |
| X. Conspicillaris, e | T. Crepuscularia | A. Comptana | B. Incongruella |
| T. Piniperda | , Laricaria | S. Vacciniana | O. Piniariella |
| T. Gothica | A. Pictaria | E. Argyrana | C. Cuculipennellum |
| " Leucographa | N. Pulveraria, e | A. Splendidulana | O. Anglicella, e |
| " Rubricosa | F. Carbonaria | , Pygmæana, b | E. Rufocinerea |
| " Instabilis | A. Æscularia | H. Fimbriana | L. Bremiella |
| " Opima | L. Multistrigaria | T. Hyemana | |
| " Populeti | E. Helveticaria | B. Salicella | |

In this month the first fresh Butterflies mingle with the hibernated species, but none of any rarity.

The remarks on sallow-searching under last month also apply to this. That rarity, M. Carmelita, should now be sought for on the trunks of birch trees and palings near, and B. Prodromaria and C. Fagella on oaks, the former generally near the ground, not far from its Pupa case under the tree, from which it has not long emerged. By beating oaks we may find H. Fimbriana and D. Salicella. S. Inconspicuella may sometimes be seen at rest on palings. I. Pectinea occurs among birch, and O. Piniariella, among fir trees. M. Purpurella, and others of that genus, may be obtained by sweeping the twigs of birch.

In Perthshire the fine A. Nubeculosa is found in birch woods. The handsome E. Versicolora is more widely dispersed, and the ♂ are easily taken flying on fine mornings by the aid of a bred ♀ in a box, though without such assistance you may watch their mad gambols for hours and fail to net a specimen.

Ilicifolia occurs at rest on moors. N. Trepida may sometimes be seen on trunks of oak at the end of the month in a warm spring. The Tæniocampæ visit laburnum trees. The Eupithecia fly just before dusk. The species of Micropteryx fly on sunny afternoons, and at other times may be shaken from oaks, &c. A. Cuprella flies in sunny weather over sallows. The long-winged T. Caudella flies over spindle-bushes after dark, and together with the hibernated Depressaria seem much commoner now than before hibernation. H. Vigintipunctatus occurs only among Sedum telephium. Most of last month's insects are still out.

APRIL.

LARVÆ.

APRIL.

ON ALDER.

DOCK, &c.

- T. Sphegiforme, in D. Humuli, r
the stems C. Alsines
,, Culiciforme, do. M. Typica
E. Apiciaria, and „, Maura
willow C. Bilineata

BIRCH.

FIR.

- T. Scoliaformae, in E. Fasciaria
the stems T. Variata
,, Culiciforme, do. F. Firmaria
C. Bilunana; in the A. Strobilella, cones
catkins R. Turionella, shoots
A. Brockeella E. Fulvipunctana, h
shoots

BRAMBLE.

GRASSES.

- N. Udmanniana L. Megæra
B. Repandata L. Conigera
CHICKWEED, &c. L. Pudorina
C. Alsines „ Impura
„ Cubicularis „ Lithargyria
C. Bilineata „ Comma

CLOVER, &c.

NETTLE, &c.

- P. Alexis H. Populare, r
E. Plumbaria P. Leucophaea
G. Anthyllidella C. Cytherea

CURRANT.

OAK.

- T. Tipuliforme, in M. Strigilis
the stems A. Valligera, r
C. Dotata N. Xanthographa
I. Capitella, twigs A. Lunosa

DANDELION.

SLOE.

- H. Hectus G. Obscurata
A. Bisetata F. Radiella, in mea-

M. Artemis Scabious, plantain,
woodbine, &c.

P. Alexis Trefoil, &c.
,, Agestis Heron's bill

T. Alveolus Wild raspberry

T. Vespiiforme Aspen, &c., in the
roots and stems

T. Sphegiforme ... In stems of alder

T. Myopæforme ... Apple and plum,
in the stems

HEATH, &c.

- A. Myrtilli
E. Plumbaria
C. Juncicolella

HONEYSUCKLE, &c.

- P. Iota
T. Forsterana
L. Trifasciella

LICHENS.

- B. Perla
R. Turionella, shoots
C. Lichenaria, h
A. Flexula
X. Melanella

MOSS.

- E. Ambigualis
E. Frequentella
C. Falsellus
„ Hortuellus
G. Domestica

NETTLE, &c.

- P. Iota
„ Chrysitis
V. Auricoma
H. Proboscidalis
S. Fabriciana

OAK.

- T. Cynipiforme, in
the bark

B. Roboraria

- A. Glaucinella, in
the bark

C. Lixella [dows

- F. Radiella, in mea-
L. Messaniella

T. Formicæforme... In the cut stumps

PLANTAIN.

- M. Artemis
N. Plantaginis
P. Fulginosa
G. Trilinea
C. Alsines
G. Tringipennella

POPLAR.

- T. Subtusa
S. Apiformis, in the
stems and roots
T. Vespiiforme, do.

REED.

- S. Ulvæ
C. Phragmitellus
E. Cerusella
In the stems.

- N. Neurica
P. Arundinis

SALLOW(CATKINS.)

- E. Tenuiata
X. Cerago
„ Silago
O. Lota
C. Trapezina
E. Viminalis
H. Russata

SLOE.

- C. Elinguaria
B. Repandata
A. Mendica

TEAZLE.

- C. Morpheus [seeds
E. Roseana, in the

of osiers

O. Potatoria, h..... Grass

L. Comma Grass, &c.

„ Littoralis Ammophilia arun-
dinacea

Impura..... Sedge

O. Macilenta Beech and birch

A. Fibrosa Yellow flag, in fl.
stems

APRIL.

LARVÆ.]

APRIL.

| | | | |
|------------------|---|--------------------|---------------------------------|
| C. Xerampelina | Ash | S. Woeberana | Under bark of fruit trees, &c. |
| X. Ferruginea | Seeds of wych-elm | L. Rubiella | In raspberry shoots |
| C. Pyralina | Galium mollugo, &c. | T. Verhuellella | In ferns |
| P. Iota | Groundsel, &c. | P. Porrectella | Hesperis matronilis |
| " Chrysitis | Nettle, &c. | T. Parasitella | Fungi & rotten wood |
| M. Typica | Nettle, primrose, &c. | D. Assimilella | Between united broom twigs |
| A. Prunaria | Plum, &c. | G. Diffinis | Near the root of sheep's sorrel |
| P. Syringaria | Privet and lilac | " Affinis | Moss on old walls |
| B. Repandata | Spindle, &c. | Tricolorella | Greater stitchwort |
| G. Obscurata | Sun cistus | " Anthyllidella | Anthyllis, &c. |
| C. Elinguaria | Hawthorn | " Arundinetella | Carex riparia |
| A. Candidata | Hornbeam | G. Haworthana | On the seeds of cotton grass |
| A. Scutulata | Anthriscus sylvestris, fl. | A. Ephippella | In the shoots of cherry |
| A. Ornata | Thyme | " Aurulentella | Juniper |
| " Strigilata | Common knot grass | C. Laricella | Larch [idea |
| " Aversata | Geum herbanum and gooseberry | " Vitisella | Vaccinium, Vitis |
| S. Clathrata | Medicago & Hedysarum | " Albitarsella | Ground ivy and marjoram |
| L. Didymata | Chærophyllum, cowslip, &c. | L. Miscella | Sun cistus |
| " Olivaria | Galium | S. Brunnicella | Clinopodium vulgare |
| E. Rectangulata | Buds of fruit trees | E. Trapeziella | Luzula pilosa |
| M. Montanata | Primrose | E. Magnificella | Ditto |
| H. Nemoralis | Chrysoplénium al- | " Gleichenella | Carex |
| | ternifolium | " Cinereopunctella | Ditto |
| P. Farinalis | Straw, corn, &c. | " Luticomella | Dactylis glomerata |
| C. Lemnata | Duckweed | " Kilmunella | Carex |
| A. Pinguinalis | Greasy horse cloths, &c. | " Nigrella | Poa trivialis, &c. |
| P. Stratotata | Stratiotes, Callitricha, &c. | " Gregsoni | Poa |
| H. Nymphæata | Water lily and Potamogeton | " Bedellella | Avena pratensis |
| E. Crocealis | Fleabane | " Subnigrella | Bromus erectus |
| S. Fabriciana | Pellitory, nettle, &c. | " Perplexella | Aira cespitosa |
| A. Lotella | Roots of Aira canescens and Festiva | " Poa | Poa aquatica |
| | ovina | " Megerella | Brachypodium, Bromus, &c. |
| T. Forsterana | Ivy, &c. | Zonariella | Aira cespitosa |
| S. Roborana | In rose shoots | " Paludum | Carex paludosa and Paniculata |
| H. Fænella | Mugwort, inside roots | " Biatomella | Carex glauca |
| D. Petiverella | In roots of yarrow | " Cygnipennella | Dactylis glomerata |
| " Simpliciana | Ditto, mugwort | L. Scabiosella | Scabiosa columbaria |
| B. Lanceolana | In stems of rushes | C. Spartifoliella | Broom, mining bark |
| E. Fulvipunctana | Myrica gale, Vaccinium, Vitis idea, &c. | B. Aurimaculella | Ox-eye daisy |
| | P. Trigonodactylus | P. Trigonodactylus | In coltsfoot flower stems |

APRIL.

LARVÆ.]

APRIL.

| VARIOUS TREES AND PLANTS. | VARIOUS PLANTS. | N. Depuncta | E. Lutulenta |
|------------------------------|--------------------|--------------|---------------|
| H. Lupulinus, r | A. Villica | " Augur | " Lichenea |
| " Humuli, r | X. Rurea | " Plecta | P. Meticulosa |
| " Velleda, r | " Polyodon, r | " C-Nigrum | " Empyrea |
| L. Quercus, h | " Hepatica, r | " Triangulum | A. Herbida |
| C. Russata | T. Ianthina | " Rhomboidea | " Occulta |
| P. Chrysorrhæa, h | " Fimbria | " Brunnea | " Nebulosa |
| B. Repandata | " Interjecta | " Festiva | " Tincta |
| T. Angustiorana | " Subsequa | " Dahlia | " Advena |
| | " Orbona | " Umbrosa | P. Gamma |
| | " Pronuba | " Baja | S. Olivalis |
| | | A. Ravida | " Prunalis |

T. Fimbria, A. Tincta, and other low-plant-feeders, apparently liking a change of food, may sometimes be found at night eating the buds of birch and other trees. G. Obscurata, resting from his grass-feeding, may sometimes be found concealed by day among stones. P. Porrectella spins up in a web on the under-side of the leaves of Dame's Violet and Garden Rocket.

For S. Apiformis and T. Vespaiforme wait till the Pupæ are bedded near the entrance of the burrow. The Larva of T. Sphegiforme feeds in young suckers of alder, where the old tree has been cut down. It eats a gallery up the centre of the shoot nine or ten inches, by which time it is full-fed. It then turns aside and eats at right angles through to the bark, where it assumes the Pupa state.

P. Fuliginosa frequently hides under the leaves of borage. N. Plantaginis and C. Elin-guaria are best found at night. E. Lichenea is hard to breed away from its native habitat. A. Occulta can only be found in the evening. The greatest care is requisite in breeding C. Alsines, as they are easily injured by shifting their food.

C. Xerampelina now issues from its winter quarters, nearly full-fed. It is very retired in its habits, and feeds sparingly on ash shoots and thorn. To take A. Myrtilli, gently clear away the bottom of the heath, and shake it into the net.

B. Repandata feeds indifferently upon all sorts of underwood. Search the underwood of one or two years' growth, and the grass at the edge of ridings, with a lantern immediately after dark, every mild evening. Large numbers of different Larvæ may be thus taken during this and the following month. Nearly all the genus Noctua can be thus easily found.

Grasses, rushes, and carices are now productive of sundry Elachistidae and Coleophoræ, and several of the larger tribes. Sheltered spots in woods and lanes are the best places; and for the larger species wet evenplugs the best time. Viburnum lantana, the Mealy Guelder Rose, is an early tree, and will repay a search. Whitethorn trees nourish hordes of common Larvæ. For E. Trapeziella examine the under-side of the leaves of Luzula pilosa.

T. Verhuellella seems well distributed, and must be caught now, mining in leaves and seeds of A. Ruta muraria and other ferns. L. Rubiella is often too common in raspberry shoots. The pink larva betrays its presence by the blighted aspect of the young shoots.

PUPÆ.]

| | | |
|---------------------|---|--|
| T. Consonaria | Under moss and at the roots of beech | Y. Ruberaria ... } Under loose bark B. Urticalis..... } on poplar |
|---------------------|---|--|

APRIL.

IMAGOS.]

MAY.

| | | | |
|---------------------------|-----------------------|---------------------|--------------------|
| P. Machaon, m, mā | L. Carmelita | H. Arbuti, m | L. Marginata |
| P. Brassicae | P. Trepida, e | P. Gamma | P. Hippocastanaria |
| " Rapae | C. Reclusa | E. Mi | E. Albulata |
| " Daphidice | Curtula | " Glyphica | " Blandinta |
| A. Cardamines | P. Bucephala | P. Enca | L. Pectinataria |
| L. Sinapis | D. Pudibunda | C. Linariae, c | E. Venosata |
| L. Agerin | D. Coryli | H. Marginata, e | " Consignata |
| " Megæra | L. Aureola, e | R. Cratageta | " Linariata |
| C. Pamphilus, e | G. Rubricollis | V. Maculata | " Pulchellata |
| A. Euphyrocyne | N. Plantaginis | S. Illustraria | " Centaureata |
| M. Artemis, c | P. Fulginosa | " Illumaria | " Subumbrata |
| N. Lucina, e | S. Menthasti | " Lunaria | " Plumbeolata |
| T. Rubi, e | Lubricepeda | E. Dolabria | " Helveticaria |
| C. Phœas, e | D. Mendica | B. Hirtaria, b | " Satyrata |
| To the end of the season. | L. Rubi, e [he] | O. Bidentata | " Castigata |
| P. Argiolus | S. Pavonia-minor, | A. Betularia | " Pimpinellata |
| " Adonis | C. Spinula | H. Abruptaria | " Pusillata |
| " Alexis, e | P. Lacertinaria, e | B. Cinctaria | " Irriguata |
| " Agestis | D. Sicula, e | T. Consonaria | " Indigata |
| T. Alveolus | Falcataria | " Crepuscularia, b, | " Nanata |
| " Tages | " Hamula | Lariearia, b | " Vulgata |
| P. Sylvanus | " Unguicula | " Punctulata | " Assimilata |
| S. Ocellatus, e | F. Radiella | N. Viridata | " Abbreviata |
| " Populi | T. Batis | I. Lactearia, e | " Dodoneata |
| " Tiliae | C. Duplaris | E. Porata | " Exiguata |
| C. Porcellus, e | A. Runicis | " Punctaria | " Coronata |
| M. Stellatarum | " Ligustri | " Trilinearia | " Pumilata |
| S. Fuciformis | " Psi | " Omicronaria | L. Hexapterata |
| " Bombyliformis | Myriæ | " Orbicularia | " Viretata |
| " Apiformis, e | X. Conspicillaris, b, | " Pendularia | Y. Ruberaria |
| T. Sphegiforme, m | M. Albicolon, e | A. Candidata | " Impluviata |
| " Culiciforme, e | " Brassice, e | " Luteata | M. Ocellata |
| H. Lupulinus, c | A. Unanimis | A. Remutata, e | " Albicillata |
| C. Bicuspid | " Basilinea | C. Pusaria | M. Biriviata |
| " Furcula, c | G. Trilinea, e | " Rotundaria | " Montanata |
| " Bifida, e | H. Palustris, e | " Exanthemata | " Fluctuata |
| " Vinula | D. Capsincola | C. Punetata | " Galata |
| S. Fagi | " Cucubali | " Taminata | A. Derivata |
| N. Tritophus | P. Meticulosa | M. Liturata | " Berberata |
| " Dromedarius | E. Lucipara, e | S. Clathrata | C. Propugnata |
| " Ziezac | H. W-Latinum, e | L. Petraria | " Ferrugaria |
| P. Palpina | " Thalassina | N. Pulveraria | " Unidentaria |
| D. Chaonia | " Pisi, e | F. Carbonaria | P. Vitalbata |
| " Dodonea | " Dentina | " Atomaria | S. Certata |
| G. Crenata | C. Perspicillaris | " Piniaria | C. Corylata |
| P. Dictæa | C. Verbasci | " Limbaria | " Russatn |
| " Dictæoides | " Schrophulariae | M. Euphorbiata | " Suffumata |
| L. Cueullina | " Asteris, e | A. Citraria | " Silaccata |
| " Camelina | " Chamomilla | A. Ulmata | " Prunata |
| | A. Cordigera | L. Adustata | " Lineolata |

MAY.

IMAGOS.]

MAY.

| | | | |
|---------------------|-------------------------|---------------------|---------------------|
| A. Plagiata | Splendidulana | P. Cruciferarum | ,, Tringipennella |
| C. Obliquaria | R. Turionella, e | Porrectella | ,, Syringella |
| P. Punicalis | G. Albersana | G. Velocella | ,, Omissella |
| ,, Purpuralis | ,, Ulicetana, to Aug., | Longicornis | ,, Auroguttella |
| ,, Ostrinalis | E. Arbutella, e | Diffinis | ,, Imperialella |
| H. Cespalis | S. Euphoriana | Acuminatella | O. Avellanella |
| E. Cingulalis | M. Palustrana, to Jul., | Mundella | ,, Devoniella |
| ,, Anguinalis | L. Reliquana | Proximella | ,, Angelicella |
| B. Lupulinalis | P. Rugosana, e | Luculella | ,, Betulae |
| ,, Lancealis, e | E. Fractifasciana, to | Scriptella | ,, Torquillella |
| F. Forficalis | August | Solutella | ,, Guttea |
| N. Cristulalis, e | ,, Quadrana | Littorella | C. Limosipennella |
| E. Pyralella | A. Baumanniana | Aleella | ,, Fuscocuprella |
| H. Nimbella | ,, Maritimana, e | Triparella | ,, Albicosta, e |
| H. Ahenella | E. Maculosana | Anthyllidella | ,, Murinipennella |
| C. Chrysonuchellus | ,, Curvistrigana | Cerealella | L. Miscella |
| ,, Pratellus | L. Straminea | Naeviferaella | A. Modestella |
| C. Prasinana | X. Zögana, to Aug., | Hermannella | C. Festaliella |
| E. Clorana | T. Rusticella | Pictella | S. Brunnichella |
| E. Ministrana | ,, Monachella, to | Brizella | E. Cinereopunctella |
| A. Praelongana | Aug. | Y. Fasciellus | ,, Nigrella |
| ,, Marginana | ,, Corticella, to do. | P. Bicostella, e | ,, Gregsoni |
| L. Musculana | P. Parasitella | H. Geoffrella, e | ,, Bedellella |
| P. Tripunctana, e | ,, Cloacella, to Aug. | D. Sulphurella | ,, Obscurella |
| S. Trimaculana | P. Ruricolella, to | E. Minutella | ,, Humilis, e |
| P. Tetraquetra | Aug. | Tripuncta | ,, Subnigrella, e |
| ,, Immundana | ,, Lapella, to Aug., | Similella | ,, Perplexella |
| D. Plumbagana | I. Muscalella | Grandis, e | ,, Poæ |
| C. Hyrciniana | ,, Capitella, e | Subaquilea | ,, Megerrella |
| C. Ochraceana | N. Swammerdam- | Tinctella | ,, Zonariella |
| H. Simiplana | mella, e | B. Grandipennis | ,, Gangabolla, e |
| ,, Servillana | ,, Schwarziella | P. Leuwenhoekella | ,, Taeniatella |
| A. Mitterbacheriana | ,, Metaxella | R. Erxlebella, e | ,, Cerusella |
| ,, Upupana | A. Fibulella, e | G. Fuscoviridella | ,, Paludum, e |
| ,, Subarcuana | ,, Rufimitrella | ,, Haworthiana, to | ,, Biatomella |
| ,, Uncana | ,, Viridella, e | July | ,, Rufocinerea |
| ,, Lundana | M. Calthella | ,, Schœnicolella, e | ,, Cygnipennella, e |
| ,, Comptana | ,, Mansuetella, e | ,, Fischeriella, to | T. Marginea |
| ,, Siculana | A. Allionella | July | ,, Angusticollella |
| ,, Unguicella | ,, Thunbergella | E. Dentella | L. Amyotella |
| B. Lanceolana | ,, Sparmannella | P. Obscurepunctella | ,, Roboris |
| H. Rheediella | ,, Subpurpurella | A. Pfeifferella | ,, Hortella |
| R. Arcuella | S. Apicella | T. Sericellum | ,, Sylvella |
| E. Ruficiliata | ,, Griseo-capitella, | ,, Stanncellum | ,, Cramerella |
| S. Vacciniana | to Aug. | A. Conjugella, to | ,, Tenella |
| E. Argyrana | ,, Pyrella | July | ,, Heegeriella |
| S. Compositella | H. Vigintipunctatus | ,, Mendica, e | ,, Alnifoliella |
| ,, Internana, e | A. Bipunctella | ,, Arceuthina | ,, Irradiella |
| ,, Perlepidana | ,, Decemguttella | ,, Praecocella | ,, Lautella |
| A. Strobilella | C. Pyrausta | G. Swederella | ,, Ulmifoliella |

MAY.

IMAGOS.]

MAY.

| | | | |
|-------------------|------------------|-------------------|-------------------|
| L. Spinolella | , Dunningiella | , Demaryella | , Ignobilella |
| „ Cavella | , Frolichicella | , Boycerella | , Arcuata |
| „ Viminetorum | , Stettinensis | , Hippocastanella | , Atricollis |
| „ Salicicolella | , Kleemannella | N. Atricapitella | , Microtheriella |
| „ Pomifoliella | , Schreberella | , Ruficapitella | , Argentipedella |
| „ Torminella | , Emberizæpen- | , Pygmæella | , Acetosæ |
| „ Spinicolella | nella | , Pomella | , Betulicola |
| „ Faginella | , Tristrigella | , Oxyacanthella | , Plagicolella |
| „ Coryli | , Scabiosella | , Viscerella | , Malella |
| „ Carpinicolella | , Trifasciella | , Anomalella | , Tityrella |
| „ Lantanella | , Comparella | , Catharticella | , Glutinosæ |
| „ Quinqueguttella | C. Laburnella | , Argyropeza | , Gratirosella |
| „ Quercifoliella | , Wailesella | , Apicella | , Prunetorum |
| „ Messaniella | , Lotella | , Trimaculella | , Alnetella |
| „ Viminella | B. Aurimaculella | , Salicis | , Marginicolella |
| „ Corylifoliella | , Cidarella | , Myrtillælla | T. Vulpersella |
| „ Caledoniella | , Ulmella | , Flosactella | P. Microdactylus |
| „ Nicellii | , Cratægi | , Luteella | A. Polydactyla, h |

P. Dictæa may often be found at the bottom of pollard willows or large poplars.
D. Pudibunda has a habit of hanging to the undersides of bramble and hop leaves. L. Aureola sits high up on fir trees where the bark is yellow, as if the more effectually to evade discovery. N. Plantaginis, when caught, should be "settled" at once by chloroform or cyanide of potassium. F. Piniaria after the first week, flies high.

LARVÆ.]

ON ALDER.

D. Falcataria, b

E. Apiciaria

Y. Elutata

G. Elongella

APPLE.

T. Myopæforme, in the stems

E. Rectangulata

C. Psittacata

N. Cueullatella

C. Scabrella

A. Curvella

C. Nigricella

ASH.

C. Xerampelina

P. Curtissellus, in the shoots

C. Badiipennella

BEDSTRAW.

L. Multistrigaria

E. Lineolata

C. Pyraliata

BEECH.

L. Vau-Nigrum

O. Macilenta

M. Margaritata, h

X. Aurago

S. Satellitia

G. Papilionaria, h

C. Vittella

F. Cinnamomeana

BILBERRY.

F. Brunneata

Y. Elutata

C. Populata

BIRCH.

D. Falcataria

C. Trapezina, also

other larvæ

A. Tineta

N. Neglecta, h

B. Repandata

M. Margaritata, h

G. Papilionaria, h

P. Betulae

A. Betuletana

L. Sorbiana

P. Solandriana

C. Lutipennella

C. Ibpennella

BRAMBLE.

O. Gonostigma

B. Repandata

L. Fulvana

N. Udmanniana

BROOM.

D. Fascelina

P. Cytisaria

C. Spartiata, e

D. Atomella

BUCKTHORN.

S. Vetulata

Rhamnata

G. Fugitivella

C. Badiipennella

CURRANT.

H. Wavaria

A. Grossulariata

C. Prunata

„ Dotata

ELM.

T. W-Album, seeds

B. Bimaculosa'

S. Satellitia

X. Gilvago, seeds

„ Ferruginea, do.

A. Pyramidea

T. Munda, & aspen

C. Diffinis

„ Affinis

O. Dilutata

T. Transitana

P. Lecheana

H. Trimaculana

O. Roseana

C. Vittella

G. Fugitivella

C. Badiipennella

MAY.

LARVÆ.]

ON FIR.

- T. Variata
B. Abietaria
R. Buoliana
" Pinicolana
G. Dodecella

GOOSEBERRY.

- H. Wavaria
C. Prunata

GRASSES.

- A. Galathea, h
H. Semele
" Janira
" Hyperanthus
Pamphilus
P. Sylvanus, b.
O. Potatoria, h
H. Nictitans, r
X. Lithoxylea, r
H. Popularis, r

- A. Gemina
" Oculea
A. Valligera, r
" Suffusa, r
" Segetum, r
" Exclamationis, r
" Corticea
" Cinerea, r
E. Ochroleuca
G. Obscurata
G. Rufescens
E. Albifrontella

HAWTHORN.

- A. Crataegi
C. Spadicæ
A. Prunaria
C. Pyraliata
C. Elinguaria
H. Thymiaria
H. Rupicaprarria
" Defolaria
A. Æscularia
N. Cucullatella
M. Advenella
A. Cynosbatella

G. Vulgella

- A. Nitidella
C. Nigricella

HAZEL.

- O. Gonostigma, h
T. Cruda

T. Corylana

- L. Sorbiana
P. Solandriana

HEATH.

- E. Cribrum
N. Neglecta, h

E. Flammælis

- L. Mesomella, r [h
C. Fyrhulipennella,

HONEYSUCKLE.

- L. Sibilla
L. Xylosteana
C. Nemorella
" Xylostella
G. Mouftetella

LEGUMINOSÆ.

- P. Adonis, b
A. Filipendulæ
E. Mi

LICHENS.

- M. Miniata
L. Complanula
" Griseola
C. Quadra
C. Mesomella
P. Irriorella
C. Glabaria
" Lichenaria
M. Cineraria
A. Flexula
X. Melanella

LIME.

- X. Petrificata
L. Vau-Nigrum
X. Citrago
C. Psittacata

MAPLE.

- P. Plumigera
G. Fugitivella

MAY.

MOSS.

- E. Ambigualis
C. Falsellus

HAZEL.

- " Hortuellus

NETTLE.

- P. Iota
Interrogationis
B. Verticalis

NUT.

- G. Papilionaria, h
G. Fugitivella

OAK.

- O. Gonostigma, h
D. Falcataria

HONEY-SUCKLE.

- L. Vau-Nigrum
T. Instabilis

OAK.

- Miniosa
Cruda, also other

- A. larvæ
G. Mouftetella

- A. Rufina
H. Croceago

- D. Oo
X. Rhizolitha

- S. Petrificata
S. Satellitia

- C. Trapezina
other larvæ

- A. Pyramidea
C. Promissa

- M. Margaritata, h
H. Pennaria

- P. Pilosaria
N. Hispidaria

- B. Roboraria
P. Bajularia

- H. Thymaria
H. Leucophearia

- O. Dilutata
N. Cristulalis

- " Strigula
A. Consociella

- " Tumidella
N. Roborella

- C. Quercana
L. Sorbiana

- " Fulvana

XYLOSTEANA.

- P. Lecheana
C. Lutipennella

PALLIATELLA.

- " Curripennella

PEAR.

- C. Pyralina
E. Rectangulata

- C. Hemerobiella
G. Nanella, fl

PLANTAIN.

- M. Cinxia, h
" Athalia, h

TRILINEA.

- G. Trilinea
G. Instabilella, sea

PLANTAIN.

- M. Instabilella, sea
plantain

PLUM.

- T. Myopæforme
C. Pyralina

PRUNARIA.

- A. Prunaria
C. Hemerobiella

POPLAR.

- S. Salicis
X. Ferruginea, buds

SUBTUSA.

- T. Subtusa
Retusa

NUPTA.

- C. Nupta
E. Apiciaria

ACERIANA.

- H. Aceriana, in the
bark and young

SHOOTS.

- B. Praængusta

REED.

- L. Phragmitidis
N. Neurica

GEMINIPUNCTA.

- C. Gigantellus
" Phragmitellus, in

THE STEMS.

- the stems

ROSE.

- C. Psittacata

FULVATA.

- " Fulvata

OCHROLEUCANA.

- A. Ochroleucana

ROBORATA.

- S. Roborata

BERGMANNIANA.

- C. Bergmanniana

QUADRIPUNCTELLA.

- L. Quadripunctella

MAY.

LARVÆ.]

MAY.

| SALLOW. | T. Betulæ | SORREL. | WILLOW. |
|--------------------|------------------|-------------|---------------------|
| S. Bembeciformis, | " Pruni | C. Phlæas | T. Formicæforme, |
| in the stems | G. Quercifolia | P. Statices | in the shoots |
| T. Myopœforme, do | T. Instabilis | | S. Salicis |
| T. Cruda | V. Oleagina | | G. Quercifolia |
| T. Retusa [catkins | C. Spadicea | | D. Falcataria |
| X. Cerago, in the | C. Elinguaria | | A. Präcox, dwarf |
| Y. Elutata | A. Grossulariata | | trees, on the coast |
| C. Populata | H. Rupicapraria | | A. Pyramidea |
| H. Augustana | " Defoliaria | | T. Instabilis |
| B. Semifasciana | A. Æscularia | | " Gracilis |
| A. Capraeana | N. Cucullatella | | O. Lota |
| P. Piceana | M. Suavella | | E. Viminalis |
| A. Pygmaella | „ Marmorea | | T. Retusa |
| C. Viminetella | A. Cynosbatella | | C. Nuptia |
| „ Palliatella | „ Pruniana | | E. Apiciaria |
| „ Currcipennella | B. Repandata | | H. Augustana |
| SLOE. | A. Albistria | | P. Salicella |
| A. Crataegi | C. Nigricella | | B. Praeangusta |
| | A. Anatipennella | | |

| | | | |
|-------------------------------------|----------------------------------|----------------------|----------------------------------|
| A. Aglaia | Wild heartsease | P. Chi | Hawkweed, &c. |
| „ Selene and Eu- } phrosyne, h, b } | Dog violet | H. Chenopodiæ ... | Goosefoot and orach |
| T. Formicæforme | In the old stumps of osier beds | M. Margaritata ... | Hornbeam, &c. |
| P. Nigricans, c } | Furze, heath, | P. Syringaria..... | Privet and lilac |
| „ Opacella, e } | grasses, &c. | N. Zonaria..... | Yarrow |
| E. Grammica | Fescue grass and heather | D. Obluscaria ... | Genista, vetch, &c. |
| L. Impura | Sedge | I. Vernaria | Clematis |
| C. Forficellus..... | Poa aquatica | A. Aversata | Geum herbanum |
| N. Fulva | In stems of ditto | L. Flavicinctata | Saxifrage granulata |
| „ Cannæ | Typha latifolia | E. Sobrinata | Juniper |
| C. Paludellus..... | Ditto | M. Montanata ... | Primrose |
| N. Typhæ | In stems of ditto | C. Propugnata ... | Ditto |
| X. Scolopacina ... | Rushes, grasses, &c. | M. Fluctuata..... | Ditto |
| M. Abiecta | In twitch grass, r | L. Adustata, e ... | Dogwood, &c. |
| A. Fibrosa | In flower stems of yellow flag | E. Mæniata | Broom |
| C. Haworthii..... | Cotton grass | O. Chærophylloïta | Chærophylloïum |
| A. Cursoria | Spurge | O. Dentalis | In stems of viper's bugloss |
| C. Vetusta | Various plants, including poplar | C. Lemnata | Duckweed |
| A. Luctuosa | Convolvulus | S. Lutealis..... | Coltsfoot |
| P. Illustris..... | Monkshood | C. Quadrifasciaria | Centaurea nigra and Lamium album |
| M. Maura | Chickweed, &c. | G. Mellonella ... | Wax in bee-hives |
| T. Pastinum | Tufted vetch | C. Cicatricellus ... | Bulrush |
| M. Subrosea | Myrica gale | A. Gentianana ... | In teazle heads |
| | | T. Cinnamomeana | Larch, &c. |
| | | „ Corylana | Dogwood, &c. |
| | | L. Costana..... | Willow herbs, &c. |

MAY.

LARVÆ.]

MAY.

| | | | |
|---------------------------|---------------------------------------|---------------------|-----------------------------|
| H. Trigeminana... | Bark of roots of ragwort | " Ochrea | Sun cistus |
| " Cirsiana ... | { In stems of thistle | " Binotapennella, | |
| " Scutulana, h | { and knapweed | " h | In stems of Salicornia |
| S. Nævana | In shoots of holly | " Wockeella | Wood betony |
| G. Hypericana ... | In the tops of Hypericum | " Discordella ... | Lotus corniculatus |
| S. Ictericana | Aster tripolium, &c. | " Onosmella..... | Viper's bugloss |
| E. Arbutella | Red bearberry | " Troglodytella.. | Hemp agrimony, and |
| E. Ambiguella ... | Flower buds of vine | | fleabane |
| T. Fulvimitrella | In fungi & rottenwood | L. Raschkiella ... | Epilobium angustifolium |
| " Biselliella, to. | .In linings of chairs, | C. Illigerellus ... | Crumpled leaves of |
| Sept. &c. | | | Oegopodium podagraria |
| L. Rubicella | In raspberry shoots | " Ochraceella ... | In the stems of willow herb |
| A. Pusiella..... | Lithospermum, and Pulmonaria | " Atricomella ... | Dactylis glomerata |
| C. Nanatella | Carline thistle | " Adscitella | Sesleria caerulea and |
| G. Mulinella | Furze & broom flowers | C. Schrankella ... | Epilobium alsinifolium |
| " Fraternella ... | Bog stitchwort and Cerastium vulgatum | E. Magnificella... | Luzula pilosa |
| " Viscariella..... | Lychnis | " Rhynchospora... | Cotton grass |
| " Leucomelanella | Sea campion | " Eleochariella. | Ditto and carex |
| " Marmorea..... | Chickweed on sand-hills | " Pollinariella... | Brachypodium sylvaticum |
| " Sequax | Sun cistus | L. Vacciniella ... | Vaccinium vitis-idaea |
| " Pictella | Ditto | L. Clerckella | Apple, cherry, &c. |
| " Ocellatella..... | Flowers of sea beet | C. Spartifoliella . | Under bark of broom |
| " Coronillella | Coronilla varia | B. Maritima | Starwort |
| Y. Juniperellus ... | Juniper | " Cristatella ... | Yarrow |
| N. Verbascella ... | Verbascum | N. Weaveri | Vaccinium vitis-idaea |
| S. Humerella..... | Field southernwood | A. Bennetii | Statice limonium |
| H. Christiernana | Polygala | P. Ochodactylus | Yarrow shoots |
| CE. Unitella | In dead sticks | " Parvidactylus | Hieracium pilosella |
| B. Senescens | Thyme | " Fucus | Speedwell |
| " Chenopodiella | Chenopodium and Atriplex | " Brachydactylus | Prenanthes purpurea |
| G. Equitella | Sedum acre | " Galactodactylus | Galactodactylus |
| A. Dilectella | In shoots of juniper | Ius..... | Burdock |
| " Sorbiella | Ditto mountain ash | " Pentadactylus | Convolvulus |
| G. Ononidis | Rest-harrow & clover | | |
| C. Chalcogram-mella | Cerastium arvense | | |
| " Hemerobiella | Cherry, &c. | | |

VARIOUS TREES
AND PLANTS.

L. Trifolii
U. Sambucaria, h
C. Brumata
T. Ribeana
D. Angustiorana
C. Subjectana

C. Virgaureana
S. Lacunana
" VARIOUS PLANTS.
H. Sylvinus r, e
H. Dominula, h

E. Russula
A. Triticci
" Obelisa
" Cinerea
P. Empyrea
A. Occulta

H. Dispar
D. Fascelina
L. Quercus, h

MAY.

LARVÆ.]

| | | | |
|----------------|---------------|----------------|--------------------|
| A. Nebulosa | A. Präcox | Dahlii | S. Olivalis, and |
| „ Tincta | „ Depuncta | „ Umbrosa | Clematis |
| H. Dentina, r | „ Augur | „ Baja | „ Prunalis |
| · A. Nigricans | „ Ditrapezium | „ Neglecta | T. Icterana |
| C. Spadicea | „ Rhomboida | P. Flavocincta | C. Quadrifasciaria |
| · A. Pistacina | „ Brunnea | M. Maura | |
| X. Cerago | „ Festiva | E. Nigra | |

The following may be found at dusk, or at night, feeding on the blades of grass in ridings of woods: II. Hyperanthus, L. Impura, „ Lithargyria. At the beginning of the month A. Galathea, and at the end II. Janira, by sweeping the grass with a net. A. Galathea is sometimes green, and sometimes pale drab. S. Lembeciformis is frequently found in the stumps of osier beds. S. Salicis often sun themselves on the willow bark in companies when not feeding. D. Fuscelina is especially fond of furze blossoms. L. Griseola feeds also on sallow, and „ Companula on crab. The Larva of P. Irrorella is abundant on the coast, on ground lichens, just above the tide-mark. The Pupa is in a slight web under stones, oyster, cockle, muscle shells, &c. The Larva will feed equally well in confinement on tree lichens, and if these are sprinkled with water every morning, and the pan in which it may be kept placed in the sun, it is easily reared. P. Nigricauda and Opacella in all probability take two seasons to feed up, like P. Fusca. The Larva of A. Pistacina feeds most commonly on the leaves of Ranunculus acris, repens, and bulbosus, and may be taken in abundance by sweeping long herbage. C. Xerampelina may be found in the cracks of the bark, when the Larva hatch in the autumn they may be fed on the bark and young buds of ash and sallow. The two cannibals, S. Satellitia and C. Trapezina will thrive well on the Larvæ of M. Brassicae. P. Iota may be easily found at night. The Larvæ of M. Maura may sometimes be taken upon ivy.

Towards the end of the month the Larva of C. Nupta and O. Upsilon may be found crawling up the trunks of willows to feed; the former conceals himself during the day under loose bark, the latter among grass at the roots. To obtain D. Obfuscaria examine the stems carefully. O. Dentalis may be discovered by the black appearance of the stems of the food-plant.

A look-out should be kept in the boxes and breeding cages for the carnivorous Satellitia and Trapezina, as they will unmercifully devour any unfortunate Larva that happens to come in their way. Like other criminals, they should be accommodated with a separate cell.

PUPÆ.]

M. ArtemisOn and near scabious, P. AlexisUnder stones, &c.
plantain, &c., in wet
meadows

S. Apiformis may be found at the beginning of this month in the roots and bottom of the trunks of poplars. A. Lonicerae likes to make its cocoons on dwarf fir trees, though it avails itself of any strong stalk that is near its food-plant; and if the Larva when about to change is put into a box, it will at once make its cocoon on the side or top.

MAY.

MAY.

IMAGOS.]

JUNE.

| | | | |
|---------------------|------------------|--------------------|------------------|
| A. Cratægi, e | , Scolioformæ | F. Reticella | A. Unanimis |
| P. Brassicæ | , Tipuliformæ | H. Asellus, e | , Ophiogramma, |
| , Rapæ | , Myopæforme | L. Testudo | in ma. |
| L. Sinapis | , Culiciformæ | T. Batis, e | M. Strigilis |
| H. Janira, e | , Formicæforme | C. Fluctuosa | Fasciuncula |
| , Hyperanthus, e | H. Hectus | , Or | , Literosa |
| E. Cassiope | , Lupulinus | , Ocularis, e | , Furuncula |
| C. Davus, he | , Humuli | D. Orion, e | G. Trilinea |
| , Pamphilus | , Velleda | A. Tridens | H. Palustris, b |
| L. Sibylla | P. Arundinis | , Psi | A. Caliginosa |
| V. Atalanta | C. Ligniperda | Leporina | C. Morpheus |
| , Urticæ | C. Furcula | , Aceris | , Blanda |
| G. C-Album, e | , Bifida | , Megacephala | , Cubicularis |
| A. Selene | , Vinula | , Alni | R. Tenebrosa |
| , Euphrosyne | S. Fagi, m | , Ligustri | A. Suffusa |
| , Paphia, e | N. Dromedarius | , Rumicis | , Puta, e |
| , Adippe, e | , Ziczac | , Menyanthidis, he | , Segetum |
| , Aglaia, e | P. Palpina | , Salicis | , Exclamationis |
| M. Cinxia | D. Dodonæa | , Myricæ | , Corticea, e |
| , Athalia, he | G. Crenata | S. Venosa | , Cinerea, b |
| , Artemis, b | P. Dictæoïdes | L. Conigera | , Ripæ |
| N. Lucina, b | L. Camelina | , Turca | , Nigricans |
| T. Rubi | P. Trepida | , Lithargyria, c | , Porphyrea, he |
| , W-Album, e | C. Curtula | , Obsoleta, ma | T. Fimbria |
| , Pruni, e | P. Bucephala | , Comma | , Pronuba |
| P. Arion, m | D. Fascelina, he | , Straminea, ma | N. Augur |
| , Alexis | , Pudibunda | , Impura | , Plecta |
| , Alsus | D. Coryli | , Pallens | , C-Nigrum, e |
| , Artaxerxes | O. Gonostigma | M. Flammea | , Triangulum |
| S. Paniscus, e | L. Vau-Nigrum | S. Ulvæ | , Bella |
| P. Statices, b | L. Aureola, b | N. Despecta | ma O. Upsilon, e |
| , Globulariæ, m | , Helvola | , Concolor, e | D. Oo |
| A. Minos, m | , Complanula | , Helmanni | D. Carpophaga |
| , Trifoliæ | G. Rubricollis | A. Putris | , Capsincola |
| , Filipendulæ | P. Irroreila | X. Rurea | , Cucubali |
| S. Ocellatus | H. Dominula | , Lithoxylea | , Conspersa |
| , Populi | E. Russula, he | , Sublustris | H. Serena |
| , Tiliæ | A. Villica | , Polyodon | , Dysodea |
| S. Ligustri | N. Plantaginis | , Hepatica | P. Meticulosa |
| , Pinastri, m | P. Fuliginosa | D. Pinastri | E. Lucipara |
| D. Euphorbiæ | S. Menthrasti | L. Exigua | A. Herbida |
| C. Elpenor | , Papyratia | N. Saponaria | , Nebulosa |
| , Porellus | , Lubricipeda | P. Leucophaea, e | , Tincta |
| S. Fuciiformis, b | D. Mendica, b | M. Anceps | , Advena |
| , Bombyliformis, b | C. Jacobææ | , Albicolon, b | H. Adusta |
| S. Apiformis | L. Rubi | , Brassicæ | , Glauca |
| T. Vespiiforme | G. Quercifolia | , Persicariæ | , Dentina |
| , Chrysidiiforme, e | D. Falcataria | A. Basilinea | , Chenopodii |
| , Cynipiforme | P. Nigricans | , Connexa | , Atriplicis |
| , Sphegiforme, b | , Fusca | , Gemina | , Suasa |

JUNE.

IMAGOS.]

H. Oleracea
,, Pisi
,, Thalassina
,, Contigua
,, Rectilinea
,, W-Latinum
C. Lychnitis
,, Asteris
,, Gnaphalii
,, Chamomillæ
,, Umbratica
H. Marginata
,, Peltigera
,, Scutosa
A. Melanopa
,, Myrtilli, he
H. Arbuti, b
A. Sulphuralis
E. Venustula, e
,, Fuscula
B. Bankiana
H. Uncana
M. Ostrina
A. Urticæ
,, Triplasia
P. Festucæ, to Sept.
,, Gamma, to Oct.
,, Interrogationis
T. Pastinum
E. Mi & „, Glyphica
P. Ænæa
E. Advenaria
R. Cratægata
V. Maculata
A. Prunaria
M. Margaritata
E. Fasciaria, e
E. Dolabria, b
S. Lunaria, b
P. Syringaria
A. Betularia
H. Abruptaria, b
C. Viduaria
,, Lichenaria
B. Repandata
,, Rhomboidaria
,, Cinctaria
,, Roboraria, e
,, Consortaria
T. Extersaria

JUNE.

| | | | |
|----------------------|--------------------|-----------------|--------------------|
| H. Oleracea | Punctulata, b | M. Euphorbiata | „ Procellata |
| „ Pisi | P. Cytisaria | S. Dealbata | „ Unangulata |
| „ Thalassina | B. Fuliginaria | A. Strigillaria | „ Montanata |
| „ Contigua | N. Viridata, b, he | A. Ulmata | „ Galiata |
| „ Rectilinea | G. Papilionaria | Pantaria | A. Sinuata |
| „ W-Latinum | I. Vernaria | L. Adustata | „ Rubidata |
| C. Lychnitis | „ Lactearia | L. Marginata | C. Munitata |
| „ Asteris | P. Bajularia | „ Casiata | „ Propugnata |
| „ Gnaphalii | H. Thymaria | „ Salicaria | „ Ferrugaria |
| „ Chamomillæ | E. Punctaria | „ Miaria | „ Unidentaria [e |
| „ Umbratica | „ Trilinearia | E. Affinitata | „ Quadrifasciaria, |
| H. Marginata | O. Micronaria | „ Alchemillata | C. Bilinata |
| „ Peltigera | A. Luteata | Albulata | P. Tersata |
| „ Scutosa | „ Candidata | Decolorata | „ Lignata |
| A. Melanopa | „ Sylvata | Unifasciata | „ Vitalbata, b |
| „ Myrtilli, he | „ Blomeri, m | Ericetaria | S. Vetulata |
| H. Arbuti, b | E. Heparata | „ Blandiata | „ Undulata |
| A. Sulphuralis | V. Cambrica, e | E. Venosata | C. Picata |
| E. Venustula, e | A. Rubricata | Linariata | „ Corylata |
| „ Fuscula | „ Scutulata | Pulchellata | „ Russata |
| B. Bankiana | „ Bisetata | Centaureata | „ Silaceata |
| H. Uncana | „ Holosericata | Subumbrata | „ Fulvata |
| M. Ostrina | „ Osseata, e | Plumbeolata | E. Mæniata |
| A. Urticæ | „ Virgularia, e | Pygmæata | „ Mensuraria |
| „ Triplasia | „ Circellata | Castigata | „ Plumbaria |
| P. Festucæ, to Sept. | „ Ornata | Denotata, e | „ Lineolata |
| „ Gamma, to Oct. | Marginepunctata | Innotata | A. Plagiata |
| „ Interrogationis | Subsciricata | Subnotata | L. Nivearia |
| T. Pastinum | Immutata | Vulgata | C. Obliquaria |
| E. Mi & „, Glyphica | Remutata | Satyrita | O. Chærophyllata |
| P. Ænæa | Fumata | Pimpinellata | M. Salicalis |
| E. Advenaria | Strigilata | Haworthiata | H. Proboscidalis |
| R. Cratægata | Emutaria | Minutata, he | „ Crassalis, e, he |
| V. Maculata | Aversata | Tenuiata | H. Albistrigalis |
| A. Prunaria | Inornata, e | Dodonæata | R. Sciricallis |
| M. Margaritata | Emarginata, c | Exiguata | H. Derivalis |
| E. Fasciaria, e | B. Amataria | Togata | Barbalis |
| E. Dolabria, b | C. Pusaria | Coronata | „ Tarsipennalis |
| S. Lunaria, b | „ Exanthemata | Rectangulata, c | „ Nemoralis |
| P. Syringaria | C. Punctata | Debiliata | P. Farinalis |
| A. Betularia | „ Taminata | C. Sparsata | „ Glauccinalis |
| H. Abruptaria, b | M. Notata | L. Sexualisata | A. Pinguinalis |
| C. Viduaria | „ Liturata | „ Hexapterata | „ Cuprealis |
| „ Lichenaria | S. Clathrata | Viretata, b | C. Angustalis |
| B. Repandata | L. Petraria | T. Variata | E. Octomaculata |
| „ Rhomboidaria | N. Pulveraria | Y. Ruberaria | „ Anguinialis |
| „ Cinctaria | M. Belgaria, he | M. Occellata | P. Ostrinalis |
| „ Roboraria, e | F. Atomaria | „ Albicillata | R. Sanguinalis |
| „ Consortaria | „ Piniaria | „ Hastata | A. Nemoralis |
| T. Extersaria | „ Brunneata | M. Tristata | E. Flammealis |

JUNE.

IMAGOS.]

JUNE.

| | | | |
|--------------------|---------------------|----------------------|------------------|
| N. Cilialis | ,, Chrysonuchiellus | C. Scopolianæ | ,, Forskaleana |
| C. Lemnata | ,, Pratellus | ,, Hohenwarthiana | ,, Holmiana |
| P. Stratiotata | ,, Dumetellus | H. Bimaculana, to H. | Rheediella |
| H. Nymphæata | ,, Perlellus | Inopiana [Sept. P. | Profundana |
| ,, Stagnata | ,, Sylvellus | Trigeminana | ,, Corticana |
| B. Lupulinalis | ,, Pascuellus | Cirsiana | ,, Tenerana |
| ,, Pandalis | ,, Uliginosellus, e | Scutulana | ,, Oppressana |
| ,, Verticalis | ,, Hortuellus | ,, Brunnichiana | A. Ulmana |
| ,, Lancealis | ,, Culmellus | Turbidana | S. Spiniana |
| ,, Fuscalis | ,, Margaritellus | Fænella | ,, Obscurana |
| ,, Urticata | C. Forficellus | D. Petiverella | ,, Wæberana |
| E. Crocealis, e | ,, Phragmitellus | Sequana | ,, Nanana |
| ,, Verbasalis | C. Prasinana | Politana | ,, Vacciniana |
| ,, Sambucalis | A. Gerningiana, he | Simpliciana | E. Aurana |
| S. Palealis | H. Augustana | Plumbagana | E. Trauniana |
| S. Alpinalis | E. Ministrana | C. Distinctana | ,, Regiana |
| ,, Olivalis | A. Corticana | ,, Hyrciniana | ,, Nigricostana |
| ,, Prunalis | ,, Prælongana | C. Ochraceana | S. Nitidana |
| S. Hybridalis | ,, Ochroleucana | P. Variegana | ,, Weirana |
| P. Forficalis | ,, Cynosbatella | E. Fractifasciana, b | ,, Perlepidana |
| N. Cucullatella | ,, Pruniana | C. Subroseana | ,, Interruptana |
| ,, Cristulalis | ,, Dimidiانا | X. Zögana | ,, Dorsana |
| ,, Strigula | ,, Marginana | S. Franciana | A. Coniferana |
| S. Fabriciana | ,, Similana | C. Bilunana | ,, Splendidulana |
| E. Ambigualis | ,, Sauciana | H. Ocellana | R. Pinivorana |
| ,, Pyralella | ,, Ustulana | ,, Simplana | ,, Resinella |
| ,, Frequentella | S. Achatana | ,, De calbana | ,, Sylvestrana |
| ,, Murana | C. Rusticana, ma | ,, Servillana | ,, Duplana |
| A. Grisella | T. Viridana, e | ,, Trimaculana | ,, Turionella, b |
| E. Elutella | ,, Forsterana | S. Geminana | E. Ulicana |
| ,, Semirufa | ,, Heparana, e | ,, Ustomaculana | ,, Germarana, e |
| ,, Interpunctella | ,, Ribeana | A. Ramella | ,, Nigricana |
| H. Nimbella | ,, Cinnamomeana | ,, Mitterbacheriana | ,, Proximana |
| A. Lotella | ,, Corylana, e | ,, Upupana | ,, Puncticostana |
| A. Angustella | L. Sorbiæna | ,, Subarcuana | C. Splendana |
| C. Bistriga | ,, Costana | ,, Diminutana | ,, Grossana |
| M. Marmorea | ,, Unifasciana | ,, Biareuana | ,, Pomonella |
| ,, Ceratoniæ | ,, Fulvana | ,, Uncana | G. Albersana |
| H. Ahenella | ,, Rosana | ,, Myrtillana | ,, Hypericana |
| G. Canella | P. Lecheana | ,, Dernsana | S. Ibericana |
| A. Colonella | N. Udmanniana | ,, Obtusana | C. Hybridana |
| N. Abietella | P. Tripunctana | ,, Siculana | ,, Subjectana |
| P. Fusca | S. Rosecolana | ,, Unguicella | ,, Virgaureana |
| ,, Formosa | ,, Roborana | B. Uliginosana | ,, Alternella |
| ,, Hostilis | ,, Trimaculana | ,, Lanceolana | ,, Sinuana |
| ,, Betulæ | L. Penkleriana | ,, Furfurana | ,, Conspersana |
| C. Cerusellus | P. Demarniana | A. Conwayana | ,, Nubilana |
| ,, Rorellus | P. Piceana, e, to | D. Læfflingiana | E. Arbutella |
| ,, Cassentiniellus | the autumn | C. Bergmanniana | ,, Fulvipunctana |

JUNE.

IMAGOS.]

JUNE.

| | | | |
|-------------------------------|----------------------|---------------------|---------------------|
| E. Ericetana | L. Quadripunctella | " Basaltinella | ,, Lambdella |
| " Purpurana | " Luzella | " Proximella | " Subaquelea |
| " Branderiana | " Praeatella | " Notatella | " Panzerella |
| O. Antiquana | " Rubiella | " Vulgella | " Tinctella |
| S. Urticana | T. Verhuellella | " Luculella | " Flavifrontella |
| " Cespitana | I. Tenuicornis | " Scriptella | B. Grandipennis |
| " Politana, he | " Oehlmanniella | " Fugitivella | ,, Fusco-aenea |
| " Bifasciana | N. Swammerdam- | " Anthyllidella | " Fuscocuprea |
| M. Schulziana, he | mella, b | " Acuminatella | ,, Variella |
| P. Rugosana, b | " Schwarziella, b | " Æthiops | " Chenopodiella |
| C. Tesserana, to Aug. | Pilella | " Viscariella | A. Torquatella |
| " Audouinana | Metaxella | " Leucomelanella | P. Latreillella |
| A. Æneana | A. Fibulella | " Marmorea | ,, Leuwenhoekella |
| " Baumanniana | " Sulzella | " Ocellatella | Y. Fasciellus |
| " Subbauman- niana | " Degeereilla | " Aleella | A. Perlepidella |
| " Maritimana, b | " Viridella, b | " Leucatella | R. Erxlebella |
| E. Maculosana | N. Scabiosellus | " Mouffetella | G. Fuscoviridella |
| " Sodaliana | Cupriacellus | " Domestica | ,, Cladiella |
| " Nana | " Fasciellus | " Dodecella | " Thrasonella |
| " Curvistrigana | M. Calthella | " Triparella | ,, Equitella, e |
| " Angustana, he | " Aruncella | " Tenebrella | " Oculatella |
| " Notulana [ana] | Seppella | " Tenebrosella | Æ. Dentella |
| L. Smeathmanni- | " Mansuetella | " Ligulella | A. Treitschkiella |
| " Straminea | " Allionella | " Vorticella | T. Resplendellum |
| " Alternana | S. Cæsiella, to Aug. | " Sircomella | A. Ephippella |
| X. Hamana, to Aug. | A. Pusiella | " Nigrithella | ,, Nitidella |
| T. Pubicornis | Funerella | " Coronillella | " Albistria |
| " Pseudo-bomby- cella | Decemguttella | " Bifractella | " Mendica |
| D. Marginipunctella | P. Curtisellus | " Suffusella | " Glaucinella |
| X. Melanella | E. Messingiella | " Arundinetella | " Retinella |
| T. Imella, to Aug. | D. Assimilella | " Cerealella | " Abdominalis, e |
| " Ferruginella | Conterminella | " Nigricostella | " Curvela |
| " Rusticella | G. Cinerella | " Subdecurtella | " Sorbiella |
| " Fulvimitrella | " Rufescens | " Inopella | " Pygmaella |
| " Tapetzella | Inornatella | P. Lapella | " Gedartella |
| " Lapella | " Malvella | P. Carlinella | " Literella |
| " Arcella, to Aug. | Populella, to Aug. | S. Parenthesella | " Brockeella |
| " Arcuatella, ditto | " Nigra | H. Humerella | C. Farinatella |
| " Parasitella | Divisella | P. Bicostella | " Gysselinella |
| " Granella | Peliella | H. Geoffrella | O. Pinariella |
| " Cochyfidella | Longicornis | " Bracteella | G. Swederella |
| " Nigripunctella | Diffinis | H. Christiernana, c | ,, Elongella |
| " Albipunctella | Terrella | D. Olivella, e | " Ononidis, to Aug. |
| " Misella, to Aug. | Desertella | G. Minutella | " Scutulatella |
| " Fuscipunctella, to Sept. | Politella | " Flavimaculella | " Scoticella |
| " Semifulvella | Mundella | " Tripuncta | " Loganella |
| " Bistrigella | Boreella | " Similella | " Guttea |
| | Artemisiella | " Augustella | C. Laricella, e |
| | | " Woodiella | " Badiipennella |
| | | " Grandis | " Limosipennella |

JUNE.

IMAGOS.]

JUNE.

| | | | |
|---------------------|--------------------|-------------------|-------------------|
| C. Olivaceaella | " Murinipennella | " Megerrella | " Cratægi |
| " Lutipennella | " Cspætitella | " Obliquella | " Demaryella |
| " Viminetella | C. Lienigicella | " Cingillella | " Boycrella |
| " Vitisella | B. Piniconella | " Gangabella | " Frangulella |
| " Siccifolia | L. Contarbatella | " Serrieornis | " Hippocastanella |
| " Gryphipennella | " Lacteella | " Rhynchosporella | " Cristatella |
| " Nigricella | " Raschkiella | " Eleocharicella | N. Cryptella |
| " Orbitella | " Miscella, b | " Biatomella | " Intimella |
| " Paripennella | " Ochraceella, e | " Triatomea | " Headleyella |
| " Albitarsella | " Subbistrigella | " Polliniriella | " Weaveri |
| " Fuscocuprella | " Atra | " Subocellea | " Subbimaculella |
| " Fabriciella | C. Bimaculella, e | " Dispunctella | " Apiecella |
| " Chaleogramminella | " Schrankella | " Cygnipennella | " Scricopeza |
| " Anatipennella | " Flavicaput | " Ochreella | " Quinquella |
| " Icipennella, e | A. Åratella | T. Dodonæa | " Angulifasciella |
| " Palliatella | " Termindella | " Complanella | " Argentipedella |
| " Currucipennella | C. Festaliella | " Angusticollella | " Regiella |
| " Vulnerariæ | E. Trapeziella | L. Vacciniella | " Continuella |
| " Albicosta | " Gleichenella | " Scopariella | " Alnetella |
| " Pyrrhulipennella | " Apicipunctella | " Ulicicolella, e | T. Pulverosella |
| " Conspicuella | " Alfibrontella | L. Clerckella | P. Ochrodactylus |
| " Lixella, e | " Cinereopunctella | C. Spartifoliella | " Trigonodactylus |
| " Wockcella, e | " Luticomella | " Scitella | " Parvidactylus |
| " Discordella | " Atricomella | " Lotella | " Plagiодactylus |
| " Genistæ, e | " Kilmunella | O. Salaciella | " Fucus |
| " Niveicostella, e | " Holdenella | " Auritella | " Microdactylus |
| " Therinella | " Nigrella | " Crepusculella | " Pentadactylus |
| " Troglodytella | " Stabilella | B. Cidarella | " Paludum |
| " Lineolea | " Adscitella | " Ulmella | |

Flowers are very attractive to most Butterflies, and to many Moths. While regaling themselves on the honey, they may be easily captured. Day-sugaring, as well as night, often yields a good harvest. Sugaring should not be confined to trees; thistles and other flowers may be "painted" with the sweetened intoxicant familiar to collectors, even in the bleakest and most unpromising places, and many additional species can be thus obtained.

Hyberinated specimens of C. Edusa, V. Polychloros, G. Rhamni, and M. Stellatarum, are still out at the beginning of the month, though they are in such a tattered state from their long hibernation, as to be useless except for breeding purposes. The females of hyberinated species should be sought for in the spring months by those who desire to rear specimens through all their stages from the egg.

The following should be boxed and chloroformed or cyanided at once:—T. Rubi, II. Hectus, „ Velleda. N. Ziczaæ may be found sitting in the crevices of the bark of poplars; and L. Camelina on the fronds of fern. D. Euphorbiae and F. Reticella are coast insects.

E. Advenaria, which is easily disturbed, may be found in its haunts low down among herbage and bushes on the sides of wood-paths. E. Dolabraria rests exposed on leaves in similar places. The banded variety of B. Rhomboidaria is common at Looe, Cornwall. E. Pygmaea flies in the hot sunshine among long grass, and settles on low flowers. E. Dubitata may be disturbed from the grass on the sides of wood-paths in Cornwall and Devon. M. Unangulata and others may be driven from hedge-banks.

Mr. Wilkinson states that A. Myrtillana is confined to the north, but it has been taken plentifully on the Lickey Hills, Worcestershire, among bilberry. The males of L. Sorbiana fly wildly in open spaces in woods in the evening twilight. S. Perlepidana may be found among grass and low bushes in woods from the beginning of May.

JUNE.

H. Crassalis has a habit of suddenly darting from over-hanging banks in woods. It is very active in the net. *E. Flammealis* occurs on sloping hills and cliffs near the sea, among fern; it is very local, but abundant where it occurs. *B. Pandalis* can be obtained from many woods by beating the long grass: in fact beating is the chief means of capture for the Pyrales. *B. Lancealis* is found in damp woods, or lanes near. *H. Nimbella* may be taken among thistles and ragwort on the coast.

E. Messingiella occurs in swamps and damp bottoms. *C. Nemorella* may be obtained by sweeping long grass in woods. Both the Larvæ and Imagos of *C. Troglodytella* may be found at the same time. The Larvæ are long-lived, and try one's patience in rearing.

The glittering little *R. Erxlebella* may now be found among lime underwood, on which, probably, the Larva feeds. *C. Alcyonipeunella* is found only in sheltered places.

JUNE.

LARVÆ.]

JUNE.

| | | | |
|---------------------------|-------------------|-----------------------------------|--------------------------------------|
| M. Oxyacanthæ, b | LILAC. | A. Litura | D. Rubiginea |
| C. Spadicea | T. Gothicæ | C. Vaccinii | S. Illunaria |
| H. Defoliaria | G. Syringella | C. Trapezina, also other Larvæ | S. Pruni |
| R. Cratægata | | | |
| C. Elinguaria | LIME. | A. Aprilina | POPLAR. |
| H. Rupicapraria | X. Petrificata | H. Protea | A. Iris? |
| S. Pariana | P. Cassinea, b | X. Petrificata | C. Vinula, e |
| M. Advenella | P. Populi | B. Parthenias, s | N. Zizzac |
| C. Subjectana | X. Citrago | C. Promissa | L. Dictæa, e |
| P. Variegana | A. Ulmata | „ Sponsa | P. Palpina |
| S. Cæsiella, to Sept. | H. Defoliaria | C. Ridens | S. Salicis |
| S. Cratægella | C. Sequella | Diluta | P. Populi |
| H. Padellus | | T. Instabilis | O. Upsilon, b |
| G. Leucatella | MAPLE. | „ Stabilis | „ Lota, b |
| C. Scabrella | P. Plumigera | „ Miniosa | T. Populeti, be- tween the leaves |
| HYPERICUM. | S. Illustraria | H. Croceago | C. Nupta |
| D. Hypericella | E. Omnicronaria | E. Fulvago | G. Populella |
| G. Aurogutella | C. Forskaleana | D. Oo | L. Hexapterata |
| | C. Sequella | S. Illustraria | P. Suffusella |
| JUNIPER. | NETTLE. | E. Tiliaria | PRIVET. |
| E. Pusillata | V. Atalanta | „ Erosaria | E. Fuscantaria |
| „ Sobrinata, b | „ Io | „ Angularia | H. Abruptaria |
| T. Coniferata | „ Urticæ, b | P. Pilosaria | G. Syringella |
| D. Rutilana | G. C-Album, b | N. Hispidaria | |
| Y. Marginellus | C. Cardui | A. Prodromaria | REED. |
| LEGUMINOSÆ. | P. Chrysitis | E. Porata | N. Helmanni, r |
| P. Adonis | „ Iota | „ Punctaria | „ Crassicornis, r |
| P. Comma, e | „ Interrogationis | H. Leucophearia | C. Mucronellus |
| L. Trifolii | B. Verticalis | „ Aurantiaria | „ Gigantellus, in the stems |
| G. Tæniella | NUT. | „ Progemmaria | „ Phragmitellus |
| LICHENS. | P. Cassinea, b | E. Dodoneata | REST HARROW. |
| M. Miniata, b | E. Vespertaria | „ Abbreviata | P. Acanthodactylus |
| L. Aureola | C. Advenaria | N. Strigula | „ Phæodactylus |
| „ Helvola | B. Prodromaria | A. Consociella | „ BAliodactylus |
| „ Complana | H. Progemmaria | „ Tumidella | |
| „ Companula, h, b | „ Defoliaria | C. Phyganella | |
| „ Griseola, h, b | O. Dilutata | C. Radiatella | |
| Œ. Quadra, b | G. Papilionaria | „ Costella | |
| N. Mundana, b | F. Nitidella | „ Sylvella | |
| P. Irrerella | OAK. | „ Lucella | |
| C. Glabraria | N. Chaonia, c | P. Quercana | |
| M. Cineraria | T. Quercus | PLANTAIN. | ROSE. |
| E. Resinea | P. Cassinea, b | T. Leucographa | A. Badiata |
| „ Lineola, e | P. Populi | H. Auroraria | A. Derivata, petals |
| G. Alacella | D. Hamula | O. Dilutata | P. Variegana |
| T. Pseudo-bomby- cella | H. Dispar | PLUM. | SALLOW. |
| | P. Monacha | G. Quercifolia | A. Iris |
| | | | P. Palpina, e |
| | | | P. Cassinea, b |

JUNE.

LARVÆ.]

G. Quercifolia
 F. Nitidella
 O. Lota
 E. Viminalis
 N. Subrosea
 B. Notha
 T. Opima
 „ Gracilis
 E. Orbicularia
 C. Exanthemata
 L. Marginatæ
 L. Hexapterata
 Y. Elutata
 M. Salicalis
 C. Sequella
 P. Gibbosella
 G. Populella
 „ Temerella
 „ Soroculella
SLOE.
 G. C-Album, b

T. Betulae
 C. Neustria
 G. Quercifolia
 E. Lanestræ
 T. Cratægi
 C. Spinula
 F. Nitidella
 T. Instabilis
 C. Spadicea
 V. Oleagina
 M. Oxyacanthæ, b
 R. Cratægata
 E. Irriguæta, e
 H. Defoliaria
 M. Suavella
 C. Horridella
SPINDLE.
 I. Adustata
 H. Plumbellus
 „ Irrorellus
 „ Evonymellus

JUNE.

T. Caudella
THISTLE.
 C. Cardui
 P. Chrysitis
 G. Flavago, in the stems
THYME.
 P. Dilutella
 G. Artemisiella
VIOLET. (DOG.)
 A. Paphia, b
 „ Aglaia, b
WILLOW.
 V. Antiopa
 N. Ziczac

G. Quercifolia
 S. Salicis
 T. Instabilis
 „ Gracilis
 „ Upsilon, b
 „ Lota
 A. Litura
 T. Retusa
 E. Viminalis
 C. Vaccinii
 C. Nupta
 M. Salicalis
 S. Illunaria
 P. Saligna
YARROW.
 N. Zonaria
 A. Incarnata
 A. Gilvaria

| | | |
|------------------|---|---|
| P. Machaon, e | P. Palustre, &c. in fens | A. Pistacina, b...Ranunculus, &c. |
| P. Daplidice | Weld, &c. | P. Flavocincta ...Various fruit trees, |
| A. Cardamine | Cardamine, & other Cruciferæ | and low plants |
| L. Sinapis | Tufted vetch | H. SaturaHoneysuckle |
| L. Ægeria | Couch grass, &c. | C. VetustaMeadow and marsh plants |
| H. Semeli | Quaking grass, &c. | „ ExoletaTurnip, &c. |
| „ Tithonus | Annual meadow do. | C. Linariæ, e.....Toadflax |
| „ Hyperanthus, b | Ditto and millet ditto | C. Verbasci ... { Verbascum |
| G. C-Album, b | ...Currant, hop, &c. | Scrophulariæ scrophulariæ, &c. |
| A. Adippe, b | Violet and heartsease | H. ArmigeraWild mignonette |
| C. Dispar | Great water dock | H. ArbutiMouse-ear |
| P. Argiolus | Holly buds | A. LuctuosaConvolvulus |
| „ Corydon | Vetch? | C. Chamomilæ ...Wild chamomile |
| T. Tages, e | Trefoil & woundwort | P. Orichalcea.....Hemp agrimony |
| D. Livornica | Vine, &c. | I. Vernaria, b ...Clematis |
| C. Castrensis, e | Sea wormwood, &c. | A. IncanataPink, vetch, &c. |
| N. Fulva | In stems of Poa aqua-F. | AtomariaHeath, centaurea, tica lotus, &c. |
| G. Flavago | Ditto burdock, thistle, A. Citraria | Furze blossoms |
| | water betony, &c. | A. FluctuataHorseradish, &c. |
| H. Petasitis | Ditto & roots of butter bur and burdock | P. Vitalbata, e ...Clematis Bipunctaria ...Clover |
| C. Haworthii | Cotton grass | C. ImbutataVaccinium oxyccoccus |
| A. Cursoria | Spurge | H. RostralisHop |
| N. Subrosea | Myrica gale & sallow | P. PunicealisOriganum |

JUNE.

LARVÆ.]

JUNE.

| | |
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| P. Purpuralis.....Mint | ,, Artemesiella ...Thyme |
| C. Scintillulana...Scutellaria galericu- lata | ,, SequaxSun cistus |
| E. MuranaMoss | ,, FraternellaStitchwort |
| G. Mellonella.....Wax in bee-hives | ,, LeucatellaMountain ash, &c. |
| C. Paludellus.....Typha latifolia | ,, EricinellaHeath |
| ,, Forficellus.....In the stems of Poa aquatica | C. StriatellaTansy |
| ,, Cicatricellus...Bulrush | B. Fusco-aenea ...Cistus |
| P. SalicellaWillow shoots | N. Durdhamella . Marjoram |
| S. NævanaShoots of holly | A. GranitellaFleabane |
| D. Shepherdana . Tops of meadowsweet and hemp agrimony | C. Solitariella ...Greater stitchwort |
| L. Francillana ...In stems of hemlock | ,, Alcyonipen- ellaCentaurea nigra |
| P. AspersanaSpiræa filipendula and poterium sanguisorba | ,, Conspicuella ...Ditto |
| E. Ruficiliiana ...Seeds of cowslip | ,, OchreaCistus |
| D. Marginipunc- tella, bHazel, &c. | ,, Trogodactella . Fleabane and agri- mony |
| H. PadiPrunus padus | ,, Onosmella, b...Viper's bugloss |
| P. Porrectella.....Hesperis matronilis | ,, Murinipennella Luzula, seeds |
| ,, DalellaArabis | O. V-flavaIn fungi & wine corks |
| O. Sparganella ...Bur reed | C. Chærophylle- lus, eUmbelliferæ |
| D. LiturellaKnapweed | L. Conturbatella . Epilobium angusti- folium |
| ,, PurpureaTorilis anthriscus | H. Rœsella.....Atriplex and cheno- podium |
| ,, Capreola ...Root leaves of Bur- net saxifrage | E. Magnificella ...Luzula pilosa |
| ,, Conterminella Shoots of sallows and osiers | E. Perplexella ...Aira caespitosa |
| ,, Angelicella ...Angelica sylvestris | ,, ZonariellaDitto |
| ,, ApplanaUmbelliferæ | N. PoteriiPoterium sangui- sorba |
| ,, Al bipunctella . Chærophyllum | P. Rhododacrylus Flowers of roses |
| ,, Douglasella ...Umbelliferæ | ,, Hieracii.....Hieracium umbella- tum |
| ,, Weirella.....Anthriscus sylvestris | ,, PilosellæDitto pilosella |
| G. VelocellaSheep's sorrel | ,, Spilodactylus . Marrubium vulgare |
| ,, Ocellatella.....Flowers of sea beet | ,, Lithodactylus. Fleabane |

VARIOUS TREES AND PLANTS.

| | |
|------------------------------------|----------------|
| H. Dispar | C. Gothica |
| D. Rubiginea | ,, Instabilis |
| O. Antiqua | P. Pilosaria |
| S. Satellitia, also other larvæ | C. Elinguaria |
| T. Exoleta | T. Heparana, b |
| | S. Lacunana |

VARIOUS PLANTS.

| | |
|----------------------|-----------------|
| A. Caja | ,, Spadicea |
| ,, Villica, to April | A. Litura |
| A. Nigriceps | ,, Pistacina |
| N. Bella | C. Exoleta |
| X. Flavago | A. Tragopogonis |
| T. Icterana | M. Maura |
| C. Vaccinii | C. Virgaureana |

JUNE.

LARVÆ.]

JUNE.

From the end of this month to August, the delicate green larva of *P. Machaon* may be found in fens and marshes, feeding on umbelliferous plants. This, the largest of our Butterflies, never thrives when removed from its marshy habitat; all attempts to naturalize it in other localities having failed. The late Mr John Wolley once turned out a large number of the perfect insects in the neighbourhood of Matlock, and in the autumn of the same year the larvæ were found feeding on the common fennel; but only an occasional straggler of the perfect insect was seen the following season. A similar experiment has been tried in Devonshire, and as soon as the Imagos emerged from the chrysalis, they were pursued and devoured by swallows. Birds often snap up a Butterfly when on the wing at some height from the ground, and the severed wings sailing slowly downwards are all that remain to tell the tale.

Towards the end of the month, *G. Rhamni* may be found of all sizes on the two Buck-thorns, *R. Catharticus* and *Frangula*. Sloe bushes in the neighbourhood of woods should be beaten this month for *T. Betuleæ*.

C. Ligniperda may be taken at night by visiting the trees which can be seen to have been bored by this strong-smelling three-year wood-feeder. If roughly handled, it feigns death for some time.

C. Spinula is found on mountain ash, as well as hawthorn and sloe. The ordinary food-plant of *P. Fusca* is bramble, but it is also found on sloe, and other plants. It moves about in a case composed of crossed pieces of leaf, grass &c. It is two years feeding. *T. Cratigi* are extremely various in their appearance. Though hawthorn is their food-plant they will eat plum, &c. They often die whilst changing their fourth skin. *L. Trifolii* is seldom found far from the coast; and when a number are removed from their habitat, there is generally a large per-centge of deaths. *L. Griseola*, though a lichen-feeder, will not refuse sallow and other plants. With *L. Complanula*, *M. Miniata*, and *QE. Quadra*, it should not be sought for later than the beginning of this month, or perhaps better at the end of May, as all these species are often full-fed at that period, and if left too late, may be found to be ichneumoned. *L. Complanula* is more especially found on the lichens on ash and elm.

P. Palpina has a knack of wriggling off the branch it is on, as soon as the branch is touched. *P. Cassinea* lies close along the petiole of a leaf, and is not easily seen. Though elm and hazel are its favourite food, it will eat of almost any tree; as also will *P. Populi*. *P. Cassinea*, although not generally full-fed until this month, is sometimes more forward; it should, therefore, also be looked for in May.

The little black eggs of *C. Bisilda* and *Furcula* may be now found on the upper side of the leaf of poplars, willows, and sallows; whilst on the under side of the leaves of birch, the white ones of *L. Dictaoides*, *N. Dromedarius*, and *L. Camellina* may be seen; on poplars and sallows, those of *L. Dictæ*, *N. Ziczac*, and *P. Palpina*; and on maple, those of *L. Cucullina*. The eggs of *C. Munita* hatch this month, and hibernate to March.

X. Lithoxylea, *M. Strigilis*, *„ Literosa*, *G. Trilinea*, *C. Morpheus*, and many others, may be found on elder, red currant, beans, &c., by visiting them with a lantern at night. The larva of *C. Exoleta* now begins to feed upon dock, bladder campion, &c. *M. Oxycanthæ* are easily found at night. They fall to the ground the moment they are touched. *B. Notha* is more frequently found on aspen than sallow. When full-fed it eats some depth into rotten wood, and then assumes the pupa state. *T. Rubricosa* will eat elm as well as dock. *G. Flavago* is oftener found in the stems of the welted thistle (*C. Acanthoides*), than in other kinds. *A. Tragopogonis* prefers columbine to anything else, eating the seed-pods. *A. Aprilina* may be found in the day-time, hiding in the crevices of oak trunks.

E. Fuscantaria may be beaten from its food tree, small, at the end of the month. Ash is its favourite food. Old junipers in gardens and shrubberies should be searched to the middle of this month for *E. Sobrinata*. *E. Erosaria* will eat birch, though its favourite food is oak.

The long slender case of *T. Pseudo-bombycella*, which has hybernated, may be found in this and the preceding month on the lichen-covered trunks of beech, oak, &c. *G. Syringella* is most frequently found on young ash trees. *S. Pruni*, which feeds this month on plum, seems proved to be the second brood of *P. Opacella*.

JUNE.

PUPÆ.]

JUNE.

SUSPENDED, OR ATTACHED TO PLANTS.

- A. Cratægi, b Among hawthorn, sloe, &c.
 G. C-Album Among nettles, on walls, &c.
 L. Sibylla On stems of fern, honeysuckle, &c.
 O. Sambucaria Among ivy leaves, &c.

SPUN UP, OR UNDER MOSS, &c.

- | | |
|--|---|
| A. Trifolii, A. Lonicerae, and A. Filipendula | Spun up on stems of grass, &c. |
| O. Potatoria | Spun up among, or near grass |
| L. Quadra, e | On palings near lichen-covered trees |
| " Griseola | Under moss on lichen-covered trees |
| D. Faleataria | Between united birch leaves |
| " Unguicula | Ditto beech ditto |
| S. Irrorella, b | Under stones, &c., covered with ground-lichen near the coast |
| C. Elinguaria | Under moss on poplars |

SUBTERRANEAN.

- | | |
|-----------------|--|
| H. Semele | Under clods on dry banks, &c. |
| X. Ruren | Under moss on old stumps, &c. |
| " Hepatica | Ditto |
| " Polyodon, e | Under clods and stones |
| M. Alijecta, e | Under clods and stones, in an earthen cocoon |
| Λ. Unanimis | Under bark of willows in damp places |
| Ι. Upsilon, e | Under bark of willow and poplar |
| Α. Abietaria, e | At fir |

JUNE.

IMAGOS.]

JULY.

| | | | |
|--------------------|------------------|--------------------|--------------------|
| P. Brassicæ, e, 2 | H. Sylvinus, e | „ Strigosa | R. Tenebrosa |
| „ Rapæ, m, 2 | Z. Æsculi | „ Ligustri, b | A. Valligera |
| A. Galathea | C. Ligniperda | „ Rumicis | „ Puta |
| H. Semele, m | C. Furcula, b | „ Auricoma | „ Suffusa |
| H. Janira | „ Bifida, b | „ Menyanthidis, he | „ Exclamationis, b |
| „ Tithonus | N. Zizzac, b | L. Conigera | „ Corticea |
| „ Hyperanthns | P. Palpina, b | „ Turca | „ Ripæ |
| E. Blandina, m | L. Dictæa, b | „ Lithargyria | „ Cursoria |
| C. Davus, he | „ Dictæoides | „ Littoralis | „ Nigricans |
| „ Pamphilus, 2 | L. Camelia | „ Pudorina | „ Tritici |
| L. Sibyla | P. Monacha | „ Comma | „ Aquilina |
| A. Iris | D. Fascelina | „ Impura | „ Porphyrea, he |
| C. Cardui, e | O. Antiqua | „ Pallens | „ Ravidæ |
| V. Atalanta, e | I. Cienosa, ma | „ Phragmiti- | „ Pyrophila |
| „ Polychloros, e | S. Salicis, e | dis | „ Lucerneæ |
| „ Urticæ | M. Miniata | S. Ulvae | ma „ Ashworthii |
| G. C-Album | L. Aureola | N. Despecta | T. Ianthina |
| A. Paphia | „ Helvola | „ Neurica | „ Fimbria |
| „ Adippe | „ Complana | H. Nictitans | „ Interjecta |
| „ Aglaia, he | „ Complanula | A. Putris | „ Subsequa |
| M. Athalia, he | „ Griseola | X. Rurea | „ Orbona |
| T. Pruni | E. Quadra | „ Lithoxylea | „ Pronuba |
| „ W-Album | C. Mesomella | „ Sublustris | N. Depuncta |
| „ Quercus | P. Irrorella | „ Polyodon | „ Augur |
| C. Dispar | N. Mundana | „ Hepaticæ | „ Plecta |
| P. Acis | „ Senex | „ Scolopacina | „ C-Nigrum |
| „ Argiolas | A. Caja | N. Saponariae | „ Ditrapezium |
| „ Corydon, e | P. Fuliginosa, b | C. Graminis, e | „ Rhomboidea |
| „ Aëgon | S. Menthasti | C. Cytherea | „ Brunnea |
| „ Artaxerxes | „ Lubricipedæ | M. Abiecta | „ Festiva |
| P. Linea | E. Grammica | „ Furva | „ Dahlia |
| „ Sylvanus | „ Cribrum | „ Brassicæ | „ Subrosea |
| P. Staties | L. Quereus | „ Persicarie | „ Bella |
| A. Trifolii | C. Castrensis | A. Connexa | „ Baja |
| „ Lonicerae | „ Neustria | „ Gemina | „ Sobrina |
| „ Filipendulæ | O. Potatoria | „ Unanimis, b | O. Suspecta |
| S. Ocellatus | P. Opacella | „ Fibrosa, ma | „ Upsilon |
| „ Populi, b | „ Fusca | „ Oenlea | T. Subtusa, b |
| S. Ligustri, b | F. Nitidella | M. Strigilis | „ Retusa, e |
| „ Convolvuli | L. Testudo | „ Fasciæntula | C. Trapezina |
| „ Pinastri | T. Derasa | „ Literosa | „ Diffinis |
| D. Galii, m | „ Batis, e | „ Furuncula | „ Affinis |
| C. Porellus | C. Duplaris | M. Expolita | E. Oehroleuca |
| M. Stellatarum | „ Or, b | „ Arcuosa | D. Carpophaga, b |
| S. Bembeciformis | „ Ocularis, b | C. Haworthii | „ Conspersa |
| T. Ichneumoniforme | B. Perla | G. Trilinea | H. Dysoden, b |
| „ Scelioformæ | „ Glandifera | C. Morphæa | „ Serena, b |
| „ Tipuliforme | A. Psi | „ Alsines | E. Viminalis, b |
| „ Myopiforme | „ Leporina | „ Blanda | E. Lucipara |
| „ Formicæformæ | „ Megacephala, b | „ Cubicularis | A. Herbida |

JULY.

IMAGOS.]

JULY.

| | | | |
|-------------------|------------------|--------------------|--------------------|
| A. Occulta | " Roboraria | " Cæsiata, he | C. Picata |
| " Nebulosa | " Consortaria | " Flavincinctata | " Sagittata |
| " Tineta | G. Obscurata | " Olivaria | " Russata |
| " Advena, b | D. Obsfusaria | " Miaria | " Immanata |
| H. Assimilis | " Torvaria | E. Affinitata | " Prunata |
| " Adusta | P. Trepidaria | " Alchemillata | " Testata |
| Dentina | M. Cineraria | " Decolorata | " Populata |
| " Chenopodii | P. Cytisaria | " Tenuiata | " Fulvata |
| " Suasa | G. Smaragdaria | " Unifasciata | " Pyraliata |
| " Thalassina, b | " Papilionaria | " Ericetaria | " Dotata |
| C. Lychnitis | I. Vernaria, b | " Blomerii | P. Comitata |
| " Absinthii | P. Bajularia | E. Linariata, b | E. Mensuraria |
| " Umbraticea | H. Thymiaria, b | " Centaureata | " Plumbaria |
| H. Pisi | H. Auroraria | " Succenturiata | " Bipunctaria |
| H. Dipsacea | A. Sylvata | " Pernotata | " Lineolata |
| A. Myrtillii, he | E. Heparata | " Haworthiata | C. Imbutata |
| A. Luctuosa | V. Cambrica | " Egenaria | A. Plagiata |
| E. Venustula | A. Scutulata | " Pimpinellata | L. Nivearia |
| " Fuscula | " Bisetata | " Denotata | C. Obliquaria |
| A. Urticae | " Trigeminata | " Innotata, b | O. Chaerophyllata |
| " Triplasia | " Contiguaria | " Subnotata | H. Proboscidalis |
| P. Illustris | " Rusticata | " Absynthiata | " Rostralis |
| " Chrysitis | " Osseata | " Tenuiata, b | " Crassalis, b, he |
| " Bractea | " Holosericeata | " Subciliata | H. Albistrigalis |
| " Iota | " Virgularia | " Coronata | " Costæstrigalis |
| " Pulchrina | " Ornata, b | " Rectangulata | S. Turfosalis |
| " Interrogationis | " Incanata | T. Coniferata | R. Sericealis |
| M. Maura | " Immutata | " Firmaria | H. Derivalis |
| C. Nuptia, e | " Imitaria | Y. Elutata | " Barbalis |
| " Sponsa | " Aversata | M. Rubiginata | " Tarsipennalis |
| " Promissa | " Inornata | " Ocellata | " Nemoralis |
| P. Ænea | " Degeneraria | " Albicillata | " Cribralis |
| O. Sambucaria | " Emarginata, b | " Hastata | O. Dentalis |
| E. Apiciaria | B. Amataria | " Tristata | P. Costalis |
| " Vespertaria | G. Pusaria | " Procellata | " Farinalis |
| R. Cratagata | " Exanthemata | " Unangulata | " Glauceanalis |
| A. Prunaria | A. Flexula | " Rivata | A. Pinguinalis |
| T. Laricaria | M. Alternata | " Biriviata | " Cuprealis |
| " Crepusecularia | " Liturata | " Montanata | C. Angustalis |
| M. Margaritata | H. Wavaria | " Galiata | E. Octomaculata |
| E. Fasciaria | S. Plumaria | A. Rubidata | A. Nemoralis |
| P. Syringaria | F. Atomaria | C. Munitata | E. Flammealis |
| S. Illunaria | " Brunneata | E. Quadrifasciaria | D. Literalis |
| " Illus-traria, e | " Limbaria | C. Bilineata | N. Cilialis |
| C. Elinguaria, e | M. Euphorbiata | P. Tersata | P. Stratiota |
| C. Glabrarria, e | A. Strigillaria | " Lignata | H. Nymphæata |
| " Lichenaria | A. Grossulariata | " Vitalbata | " Stagnata |
| B. Repandata | L. Adustata | S. Rhamnata | A. Nivens, e |
| " Rhomboidaria | L. Marginata | " Vetulata | B. Flavalis |
| " Abietaria, b | L. Didymata | " Undulata | " Pandalis |

JULY.

IMAGOS.]

JULY.

| | | | |
|-------------------|---------------------|------------------|----------------------|
| B. Fuscalis | " Suavella | " Pruniana | " Inopiana |
| " Hyalinalis | " Advenella | " Gentianana | " Fænella |
| " Verticalis | " Marmoræa | " Sellana | D. Petiverella |
| " Terrealis | " Pinguis | P. Salicella, b | " Alpinana |
| " Asinalis | " Artemisiella | S. Achatana | " Simpliciana |
| " Urticata | P. Carnella | D. Grotiana | " Tanaceti |
| E. Crocenlis | " Ornatella | Œ. Pilleriana | " Plumbagana |
| " Verbascalis | " Dilutella | T. Icterana | " Consortana |
| P. Margaritalis | " Fusca | " Viburnana | C. Finitimana |
| " Stramentalis | " Formosa | " Viridana | H. Paykulliana |
| S. Sticticalis | " Betulae | " Forsterana | " Ocellana |
| " Palealis | " Palumbella | " Dumetana | " Dealbana |
| " Cinetalis | N. Roberella | " Heparana | " Neglectana |
| S. Alpinalis | C. Falsellus | " Ribeana | " Aceriana |
| " Lutealis | " Chrysonuchellus | " Cinnamomeana | " Trimaculana |
| " Olivalis | " Prætellus | " Corylana | " Minutana |
| " Prunalis | " Dumetellus | " Transitana | S. Nevana |
| " Deceptitalis | " Ericellus | L. Semialbana | A. Diminutana |
| S. Hybridalis | " Hamellus | " Costana | " Biarcuana |
| N. Cueullatella | " Pascuellus | " Unifasciana | " Derasana |
| " Strigula | " Hortuellus | " Fulvana | " Obtusana |
| S. Pariana | " Culmellus | " Roborana | D. Shepherdana |
| C. Scintillulana | " Inquinitellus | " Xylosteana | " Læfflingiana |
| E. Cembrae | " Geniculens | " Rosana | C. Bergmanniana |
| " Atomalis | " Contaminellus | D. Angustiorana | " Forskalceana |
| " Ambigualis | " Selasellus | P. Lecheana | " Holmiana |
| " Truncicolella | " Tristellus | N. Udmanniana | O. Literana, to Oct. |
| " Cratægella | " Furcatellus | S. Roborana | and h. to April |
| " Frequentella | " Pinetellus | " Rosæcolana | " Boscana |
| " Phæcoleuca | " Latistrius | " Amaenana | P. Rufana, to Nov. |
| " Resinea | " Perlellus | L. Campoliliana | " Favillaceana, to |
| " Murana | " Warringtonellus | " Cinerana | Oct. |
| " Alpina | C. Paludellus | " Nisella | " Umbrana, to Oct. |
| " Gracilialis | " Mucronellus | " Penkleriana | " Variegana |
| " Pallida | " Forficellus | P. Demarniana | " Aspersana |
| A. Colonella | " Gigantellus | " Stabilana | " Caledoniana |
| A. Grisella | " Phragmitellus | " Solandriana | T. Caudana, to Sept |
| A. Lotella | " Cicatricellus | " Ophthalmicana, | P. Profundana |
| " Farrella | " Quercana | e, to Sept. | " Corticana |
| E. Elutelia | S. Revayana, to the | C. Scopoliana | " Bouchardana |
| " Semirufa, b | autumn | " Hohenwarthiana | " Tenerana |
| E. Interpunctella | A. Gerningiana | " Parvulana | " Hawkerana, to |
| H. Nebulella | " Prodromana | " Cæcimaculana | Sept. |
| " Binaevella | H. Augustana | " Expallidana | " Signatana |
| " Sinuella | B. Semifasciana | H. Trigeminana | A. Ulmana |
| A. Consociella | " Hartmanniana, c | " Cirsiana | S. Populana, to Sept |
| " Tumidella | A. Corticana | " Scutulana | " Spiniana |
| C. Bistriga | " Betuletana | " Brunnichiana | " Obscurana |
| N. Achatinella | " Capræana | " Tetragonana | " Janthinana |
| M. Cribrum | " Ochroleucana | " Turbidana | " Rufillana |

JULY.

IMAGOS.]

JULY.

| | | | |
|------------------|--------------------|----------------------|------------------|
| S. E. Aurana | " Fuligana | " Subammannella | " Nigra |
| " Trauniana | " Cespitana | " Argentimaculel- | " Temerella |
| " Regiana | " Politana, he | N. Fasciellus [la | Lentiginosella |
| " Nigriceostana | " Latifasciana | " Cupriacellus | " Mulinella |
| S. Heegerana | " Bifasciana | " Minimellus | " Palustrella |
| " Leplastriana | M. Schulziana, he | S. Lutarea | " Sororculella |
| A. Coniferana | C. Audouiniana | S. Cratægella | " Feliella |
| " Cosmophorana | Tesserana | H. Plumbellus | " Alacella |
| R. Buoliania | A. Schrebersiana | " Vigintipuncta- | " Terrella |
| " Pinicolana | " Badiana | tus, e | " Desertella |
| " Pinivorana | " Cnicana | " Irrorellus | " Artemisiella |
| " Sylvestrana | " Dubrisana | " Padellus | " Senectella |
| " Occultana | C. Nigromaculana | " Evonymellus | " Similis |
| P. Monticolana | E. Atricapitana | " Padi | " Affinis |
| E. Saturnana | " Dubitana | A. Pusiella | Boreella |
| " Germarana, b | " Sodaliana | P. Curtisellus | " Galbanella |
| C. Juliana | " Carduana | P. Porrectella | " Basaltinella |
| " Splendana | " Nana | C. Sequella | " Domestica |
| " Grossana | " Ambiguella | " Vittella | Rhombella |
| " Pomonella | " Angustana, he | " Costella, e, to | " Humeralis |
| " Funebrana | " Notulana | Sept. | " Vulgella |
| G. Hypericana | " Griseana | " Lucella | " Fugitivella |
| " Modestana | " Rupicola | " Horridella | " Distinctella |
| " Microgrammiana | " Afinitana | " Scabrella | " Maculiferella |
| " Wimmerana | " Flavicipiliana | " Asperella, to Oct. | " Hubneri |
| " Citrana | " Roseana | " Nemorella | " Atrella |
| S. Ietericana | " Subroscana | " Xylostella | " Instabilicella |
| C. Cinetana | " Anthemidana | O. Sparganella | " Atriplicella |
| " Hybrida | " Ruficiliiana | P. Quercana | " Sequax |
| " Subjectana | X. Hamana | E. Allisella | " Leucatella |
| " Virgaureana | L. Dilucidana | D. Costosa | " Nanella |
| " Alternella | " Francillana, b | " Liturella | " Moufietella |
| " Pascuana | " Smeathmanniana | " Bipunctosa, e | " Dodecella |
| " Sinuana | " Alternana | " Assimilella | " Tenebrosella |
| " Octomaculana, | D. Rutilana | " Nanatella | " Ligulella |
| to Sept. | A. Dipotella [la | " Ciniflonella | " Tenuolella |
| " Penziana | D. Marginipunctel- | " Hypericella | " Coronillella |
| " Nubilana | X. Melanella | " Conterminella | " Albipalpella |
| A. Pratana | O. Birdella | " Angelicella | " Bifractella |
| E. Fulvipunctana | " Bisontella, he | " Carduella | " Lucidella |
| " Purpurana | " Vacculella | " Apulna, to Sept. | " Lutulentella |
| " Ericetana | E. Boleti | " Albibunettella | " Arundinetella |
| " Striana | T. Ferruginella | " Pulcherrimella | " Gemmella |
| " Branderiana | " Semifulvella | " Douglasella | " Ericinella |
| O. Antiquana | " Tapetzella | " Weirella | " Inopella |
| S. Conchana | " Picarella | P. Gibbosella | " Subocella |
| " Lacunana | " Caprimulgella | G. Cinerella | P. Lappella |
| " Urticana | " Merdella | " Rufescens | " Metzneriella |
| " Micana | " Simpicella | " Gerronella | " Carlinella |
| " Alternella | " Ochraceella | " Malvella | " Neuropterella |

JULY.

IMAGOS.]

JULY.

| | | | |
|------------------------|-------------------------|---------------------|---------------------|
| C. Cytisella | O. Piniariella. | ,, Inflatæ | ,, Ulicolella |
| A. Spartiella | G. Syringella | ,, Therinella | P. Suffusella |
| ,, Genistæ | ,, Omiscella | ,, Troglodytella | ,, Saligna |
| Y. Juniperellus | ,, Auroguttella | ,, Lineolea | C. Spartifoliella |
| ,, Marginellus | C. Brougniardellum | ,, Apicella | ,, Wailesella |
| N. Verbascella | to Sept. | ,, Argentula | ,, Scitella |
| ,, Durdhamella | O. Loganella | ,, Annulatella | O. Salaciella |
| S. Parenthesella | C. Juncicolella | S. Pedella | ,, Crepusculella |
| P. Bicostella | ,, Laricella | C. Eximia | B. Maritima |
| H. Christiernana, b | ,, Badiipennella | ,, Lienigella | ,, Frangulella |
| QE. Flavimaculella | ,, Solitariella | B. Praengusta | N. Quinquella |
| ,, Formosella | ,, Lutipennella | ,, Piniconella | ,, Angufasiella |
| ,, Lunaris | ,, Fuscedinella | O. V-flava | ,, Poterii |
| ,, Lambdella | ,, Viminetella | C. Insecurillus, e | ,, Immundella |
| ,, Panzerella | ,, Viticella | ,, Illigerellus | B. Quadrimaculella |
| ,, Fuscescens | ,, Nigricella | ,, Chaerophyllellus | A. Benetii |
| ,, Pseudo-spretella | ,, Orbitella | I. Conturbatella | P. Rhododactylus |
| ,, Quadripuncta | ,, Albitarella | ,, Propinquella | ,, Ochrodactylus |
| B. Senescens | ,, Alcyonipennella | ,, Lacteela | ,, Isodactylus |
| ,, Fusco-cuprea | ,, Frischella | ,, Ochraceella | ,, Zetterstedtii |
| ,, Cicadella | ,, Deauratella | ,, Phragmitella | ,, Acanthodactylus |
| A. Torquatella | ,, Fabricella | ,, Rhamniella | ,, Punctidactylus |
| A. Granitella, to Sep. | ,, Chalcogrammella | C. Linneella | ,, Parvidactylus |
| G. Thrasonella | | ,, Bimaculella | ,, Hieracii |
| ,, Equitella, b | ,, Hemerobiella | H. Roesella | ,, Pilosella |
| D. Ocnerostomella | ,, Anatipennella | A. Profugella | ,, Phaodactylus |
| A. Ephippella | ,, Ibpennella | ,, Aeratella | ,, Bipunctidactylus |
| ,, Nitidella | ,, Palliatella | E. Magnificella | ,, lus |
| ,, Albistria | ,, Currucipennella | ,, Gleichenella | ,, Plagiодactylus |
| ,, Glaucinella | ,, Vulneraria | ,, Flavicomella | ,, Fuscus |
| ,, Retinella | ,, Pyrrhulipennella, he | ,, Stabilella | ,, Lithodactylus, b |
| ,, Abdominalis, b | ,, Conspicuella | ,, Perplexella | ,, Lienigianus |
| ,, Dilectella | ,, Vibicella | ,, Zonariella | ,, Tephraactylus |
| ,, Andereggia | ,, Curvelia | ,, Cingillella | ,, Osteodactylus |
| ,, Sorbiella | ,, Ochrea | ,, Rhynchosporella | ,, Brachyactylus |
| ,, Pygmaecella | ,, Wockeella | ,, Eleochariella | ,, Galactodactylus |
| ,, Gedartella | ,, Saturatella | ,, Triatomea | ,, Spilodactylus |
| ,, Brockeela | ,, Discordella | ,, Pollinariella | ,, Blaiodactylus |
| ,, Aurlentella | ,, Genistæ | ,, Subocellea | ,, Tetradactylus |
| C. Farinatella | ,, Niveicostella | L. Coryli | ,, Pentadactylus |
| ,, Gysselinella | ,, Onosmella | ,, Scopariella | |

This is the great month for insects in the perfect state, though the very minute species are not so numerous as in June; still, all the great divisions, and especially the Tortrices, are well represented. During the hot months of summer, the cycle of insect-life is often so rapidly completed, while the commencement and duration of that cycle vary so much according to the temperature, that not unfrequently a single month includes the time-space in which a species passes through all the stages of its existence; and five to six weeks the period for a brood to hatch from the egg, attain the Imago state, deposit eggs, and die.

JULY.

So many gems now reward the labours of the careful investigator, that our available space is insufficient for their detailed record. It may, however, be mentioned that *T. Ichneumoniforme* should be sought for on slopes on the coast; and *L. Littoralis* on sand-hills in similar situations. Though woods, forests, &c., are the most prolific in the number of species they yield, barren-looking places will well repay a careful search. Insect-life teems on every side; and each peculiar locality produces peculiar insects. While the dry land and the level country should be made to yield their treasures, marshes and mountains ought to be diligently explored; and all the resources which science and experience have placed at the disposal of the collector, for obtaining the insects in all their stages, be now energetically put into operation, during the height of the season, which will soon pass away, and with it many valued species whose aquisition would have been

"A consummation devoutly to be wished."

LARVÆ.]

ON ALDER.

- G. Elongella
I. Alnifoliella,
under-side
,, Frolichiella
,, Stettinensis
,, Klemannella
N. Glutinosæ

APPLE, &c.

- P. Monacha, b
D. Cærulococephala
A. Æscularia
S. Pyrella
O. Guttae
L. Clerckella
L. Pomifoliella
N. Pomella
,, Atricollis
,, Melcella, wild
T. Pulverosella, do.

ASH.

- C. Fraxini
E. Fuscantaria, b

ASPEN.

- C. Reclusa
,, Curtula, between
the leaves
C. Or, do.
N. Tritophus
C. Fraxini
G. Populetorum

BEDSTRAW.

- D. Livornica
C. Porcellus
,, Elpenor
A. Emarginata
M. Galiata

BEECH.

- S. Fagi
D. Unguicula
B. Parthenias
E. Angularia
E. Trilinearia
P. Favillaceana
L. Faginella

" Messaniella

N. Tityrella

BILBERRY.

- G. Ilicifolin
E. Advenaria
N. Myrtillella

BIRCH.

- T. Betulæ, b
P. Palpina
N. Tritophus
" Dromedarius
L. Dictæoides
L. Camelina
P. Populi
E. Versicolora
A. Leporina
O. Miniosa
X. Petrificata, b
C. Parthenias
C. Flavicornis

- E. Tiliaria
A. Prodromaria
C. Pusaria
P. Ferrugana
T. Bistrigella, to Sep.

- S. Griseo-capitella,
to Sept.

- G. Populetorum
O. Betulæ
L. Ulmifoliella
" Cavella
" Clerckella
N. Luteella
N. Betulicola

BUCKTHORN.

- S. Dubitata
N. Catharticella

CLEMATIS, &c.

- E. Haworthiata, m
fl.
,, Coronata, do.

CLOVER.

- C. Edusa
" Hyale
E. Bipunctaria

JULY.

CONVOLVULUS, &c.,

- Trifasciella
S. Convolvuli
A. Emarginata

ELM.

- T. Stabilis
" Instabilis
B. Hirtaira
A. Betularia
H. Defoliaria
C. Limosipennella
L. Schreberella
" Tristrigella
N. Marginicolella

FIR.

- P. Monacha, b
T. Piniperda
T. Variata
A. Pygmæana

GRASSES.

- L. Megeara
C. Pamphilus

HAWTHORN.

- L. Camelina
II. Dispar
E. Lanestris
D. Cærulococephala
P. Populi

NETTLE.

- C. Spinula
S. Pyrella
E. Vulgata
D. Contaminana
L. Pomifoliella
" Corylifoliella
" Caledoniella
N. Pygmæella
" Oxyacanthella
" Ignobiella
" Atricollis

HONEYSUCKLE.

- S. Fuciiformis
X. Lithorrhiza
A. Derivata, fl
P. Obscurepunctella
L. Emberizæpe-
nella

HORNBEAM.

- L. Tenella, under-
side
" Carpinicolella
N. Floslaetella
" Microtheriella

HYPERICUM.

- C. Perspicillaris
A. Plagiata

LICHENS.

- C. Glabraria, on firs
E. Lincola, b, on
sloe, ash, &c.

LIME.

- X. Petrificata, b
B. Hippocastanella
N. Tiliæ

MAPLE.

- G. Semifascia, in
cones
L. Sylvella

NETTLE.

- V. Io
" Urticeæ
" Atalanta
C. Cardui
G. C-Album
P. Chrysitis
B. Verticalis
" Urticalis
S. Fabriciana

NUT.

- O. Avellanella
L. Coryli, upper-
side only
" Nicelli, under-
side only
N. Floslaetella
" Microtheriella

JULY.

LARVÆ.]

JULY.

| ON OAK. | PLANTAIN. | REST-HARROW. | SLOE. |
|---|------------------------------------|--------------------------------------|---|
| D. Dodonea | H. Palustris | H. Marginata, e | T. Betulae, b |
| „ Chaonea | T. Leucographa | „ Peltigera | E. Lanestris |
| L. Camelina | G. Tringipennella | P. Acanthodactylus | O. Torquillella |
| P. Trepida | | | L. Spinicolella |
| P. Monacha, b | | | N. Plagicolella |
| P. Populi | | | „ Prunetorum |
| C. Ridens, b. | POPLAR. | SALLOW. | THISTLE. |
| T. Gothicæ | S. Populi, s. | C. Fureula | C. Cardui |
| „ Cruda | C. Bifida | Vinula | P. Chrysitis |
| „ Miniosa | „ Vinula | N. Ziezae | D. Arenella |
| „ Stabilis | N. Tritophus | C. Reclusa | „ Propinquella, under-side, |
| X. Rhizolitha | „ Zizacae | G. Illicifolia | „ Subpropinquella ditto |
| „ Petrificata | P. Palpina | H. Thalassina | „ Carduella |
| A. Aprilina | G. Crenata | G. Libatrix | G. Acuminatella |
| B. Parthenias | L. Dictaea | C. Exanthemata | |
| A. Pyramideæ | C. Curtula, between the leaves | N. Pulveraria | VERBASCUM, SCROPHULARIA, &c. |
| E. Erosaria | P. Populi | D. Ocellana | C. Verbasci |
| „ Tiliaria | C. Or, between the leaves | L. Spinolella | „ Scrophularia |
| A. Prodromaria | „ Ocularis | „ Salicicolella | |
| H. Aurantiaria | T. Populeti, between the leaves | „ Quinqueguttella | |
| O. Dilutata | G. Libatrix | N. Salicis | |
| G. Swederella, in one-shaped twis- ts of leaves | C. Fraxini | SILENE AND LYCHNIS. | |
| C. Brougniardellum | „ Nupta | N. Saponariae | |
| I. Amyotella | L. Comparella | D. Carpophaga, seeds | |
| „ Roboris | | „ Capsincola, do. till Sept. | WILLOW. |
| „ Hortella | | „ Cucubali | V. Antiopa |
| „ Cramerella | L. Cenosa, insido | „ Conspersa, seeds | C. Vinula |
| „ Heegeriella | N. Crassicornis, r | E. Affinitata, ditto | „ Furcula |
| „ Irradiella | P. Festucæ | „ Alchemillata, | P. Palpina |
| „ Quercifoliella | E. Cerusella | „ ditto G. Libatrix | C. Reclusa, e |
| „ Messaniella | | E. Venosata, ditto | G. Cuneatella |
| B. Ulmella | | | |
| N. Atricapitella | ROSE, &c. | | |
| „ Ruficanitella | A. Derivata, fl | | |
| | N. Anomalella | | |

| | | | |
|--------------------------|---|-------------------|---|
| A. Cardamines | Cardamine, and other Cruciferae | N. Typha | In stems of <i>Typha</i> <i>latifolia</i> |
| N. Lucina | Primrose | „ <i>Cannæ</i> | „ Ditto |
| T. Rubi | Bramble and Legu- minoſe | H. Petasitis | In stems and roots of butter bur & burdock |
| P. Comma | Leguminosæ | X. Conspicillaris | <i>Lotus</i> and other low plants |
| A. Atropos | Potato, tea tree, jas- mine, and ash | T. Rubricosa | Dock |
| S. Bombylifor- mis, e | Devil's bit scabious | H. Dysodea | Lettuce |
| D. Pulchella | Field forget-me-not | „ Serena | Hawkweed and other composite fl. |

JULY.

LARVÆ.]

JULY.

| | | |
|---|--|---------------------|
| P. Flavocincta ... Ditto chickweed, &c. | " Costella | In stems of woody |
| E. Lichenea Foxglove, ragwort, &c | " nightshade | |
| H. Glauea Coltsfoot ? | " Obsoletella ... | Atriplex and Cheno- |
| C. Gnaphalii Golden rod | " podium | |
| " Chamomilla .. Wild chamomile | " Anthyllidella In Anthyllus vulne- | |
| C. Linariae..... Toadflax | " raria | |
| H. Arnigera Wild mignonette | " Paupella In heads of fleabane | |
| " Scutosa Artemisia campestris | A. Granitella..... In leaves of ditto | |
| P. Orichalcea .. Hemp-agrimony | " Pygmaea, to | |
| " Festucæ Sedge, &c. | Oct | Woody nightshade |
| H. Abruptaria ... Lilac and privet | L. Francillana ... | In stems of hemlock |
| B. Fuliginaria ... Fungi on rotten wood | A. Pfeifferella ... | Dogwood |
| F. Atomaria Centaurea, lotus, &c. | " Treitschkiella Ditto | |
| B. Amataria Sorrel, dock, &c. | G. Omiscella, b... Mugwort [folium | |
| T. Juniperata ... Juniper | L. Raschkiella ... Epilobium angusti- | |
| E. Cervinata, m. Mallow & hollyhock | " Miscella Sun cistus | |
| P. Punicalis..... Origanum | " Epilobiella ... Willow herb tops | |
| " Purpuralis ... Mint | C. Schrankella ... Epilobium alsinifo- | |
| A. Niveus Potamogeton pectin- | " lium | |
| B. Lupulina In the stems of hop | A. Langiella Circas lutetiana | |
| " Fusalis..... Seeds of yellow rattle | S. Brunnichelла Clinopodium vulgare | |
| P. Forficalis Cabbage, horseradish, E. Kilmunella ... Carex | | |
| &c. | " Nigrella Poa trivialis, &c. | |
| E. Angustea In moss | " Bedellella Avena pratensis | |
| A. Angustella ... Spindle | " Subnigrella ... Bromus erectus | |
| H. Vigintipuncta- | " Poa, e Poa aquatica | |
| tus Sedum telephium | " Megerella ... Brachypodium, Bro- | |
| A. Bipunctella ... Viper's bugloss | " mus, &c. | |
| P. Cruciferarum Cabbage, &c. | " Biatomella ... Carex glauca | |
| D. Umbellana ... Furze | L. Bremiella Viccia sepium | |
| " Arenella Knapweed, &c. | " Viminetorum Osier | |
| " Alstroemeriana Hemlock | " Torminella ... Sorbus torminalis | |
| " Apiana Umbellifera | " Lantaneilla ... Viburnum lantana | |
| " Ciliella Angelica | " Vacciniella ... Vaccinium vitis-idae | |
| " Pimpinella ... Pimpinella saxifraga | " Viminella ... Osier and sometimes | |
| " Emeritella ... Tansy | " sallow | |
| " Pulcherrimella Flowers of Bunium | " Scabiosella ... Scabiosa columbaria | |
| flexuosum | C. Laburnella ... Laburnum | |
| " Chaerophylli ... In umbels of C. te- | " Lotella In lotus leaves | |
| mulentum | B. Aurimaculella Ox-eye daisy | |
| " Nervosa..... Ditto of Cenanthæ | " Cristatella ... Yarrow | |
| crocata | N. Cryptella Lotus corniculatus | |
| " Heracliana ... Ditto of cow and | " Arcuata..... Potentella fragarias- | |
| common parsnip | " Acetosa..... Sorrel | [trum |
| G. Hippophaëlla... Sea buckthorn | P. Tetradactylus Thyme | |

JULY.

LARVÆ.]

JULY.

VARIOUS TREES AND PLANTS.

| | |
|----------------|---------------|
| H. Dispar | A. Litura |
| O. Antiqua | C. Vaccinii |
| P. Chrysorrhœa | D. Rubiginosa |
| A. Psi | C. Exoleta |

C. Cardui feeds on the thistle, under a web; from three to six or so on a plant. Although thistles seem its natural food, it much prefers the common stinging nettle.

S. OCELLATUS AND S. POPULI.—It is well known that a second brood of many species may be obtained by a slight forcing. S. Ocellatus and S. Populi are, however, pretty regularly double-brooded in the south and west of England, in confinement, without forcing; though a second brood of Ocellatus has, we believe, never been seen at large. A second brood of Populi, however, not unfrequently occurs if the summer be hot. The larvae of these appear then in this month.

The bedstraws are the food-plants of C. Elpenor; Galium Palustre and Uliginosum being the favourites. It will also eat vine, fuschia, and willow herb. C. Furcula prefers sallow to poplar. The preference of C. Vinula is for the Lombardy poplar. P. Monacha likes oak best, and only seems to take to fir by constraint.

The Larvae of N. Typha are not full-fed until the end of this month. It is little use collecting them until they have assumed, or are about to assume, the Pupa state. T. Piniperda has a remarkable resemblance to the spines of fir trees, on which it feeds. E. Lichenea having hibernated from November, feeds on many plants, and may be taken full-fed from April to July. Besides dock, T. Rubricosa will eat elm. C. Chamomilla almost defies any attempt to fix its time of appearance. It has been taken in the Imago state both in February and in June; and full-fed and very young Larvae have also been found in June.

E. Kilmunella seems confined to the North. Where the Larvae of C. Brongniardellum feed in company, they make large, bladder-like blotches on the upper side of the oak leaves.

PUPÆ.]

SUSPENDED, OR ATTACHED TO PLANTS, &c.

| | |
|--------------------------|---|
| G. Rhamni | On buckthorn, to leaves and stems by a thread |
| V. Atalanta, c | Among nettles, generally in a chamber formed by united leaves |
| „ Polychloros | Under copings, and on palings, &c., near elms |
| „ Urticæ | Not unfrequently among nettles |
| „ Io | Ditto ditto |
| A. Iris | Has been found suspended on the under-side of oak leaves |
| P. Acanthodactylus | On rest-harrow, attached to the stems. |
| „ Phæcodactylus | Ditto ditto |

SPUN UP, UNDER MOSS, &c.

| | |
|--------------------------|--|
| L. Monacha, o | On oak in the crevices of the bark |
| C. Trapezina, m | Between dried leaves, rubbish, &c., at roots of |
| „ Affinis | { elm and oak |
| „ Diffinis | On elm |
| C. Elinguaria, b | On poplar |
| G. Papilionaria, b | In a transparent cocoon among leaves and moss on various trees |
| B. Maritama | Spun up rather high on grasses and reeds |

JULY.

PUPÆ.]

JULY.

SUBTERRANEAN.

| AT ELM. | HAWTHORN. | POPLAR. | VARIOUS TREES. |
|---------------------------------------|-------------------------------------|---------------|-------------------|
| P. Cassinea, e, very deep | T. Crataegi, on or near the surface | O. Upsilon, b | N. C-Nigrum |
| H. Aurantiaria, e ,, Defoliaria, e | OAK. | | „ Xanthographa, c |
| | P. Cassinea, e, very deep | WILLOW. | C. Dilutaria |
| GRASSES. | C. Aprilina, e | O. Upsilon, b | „ Brumaria |
| C. Graminis, r | H. Protea | Y. Elutaria | |
| | O. Upsilon, b | | |

Many autumnal species besides the above, are now in Pupa, but few will repay looking for at this busy period of the year, when so many insects are to be taken in the Imago and Larva states. Although the very common Xanthographa may be often found at various trees, it is better found by digging on heaths. In the Larva state, it feeds on low plants, and burrows at the roots of trees only when they happen to be near. C. Scabrella, in its elegant canoe-shaped cocoon, may be observed attached to the leaves of hawthorn, moss, &c.; and C. Costella, an allied species, occurs in very similar covers round oaks.

JULY.

IMAGOS.]

AUGUST.

| | | | |
|-----------------|------------------|-------------------|--------------------|
| P. Machaon, b | P. Chrysorrhæa | „ Cespitis | „ Flavocincta |
| G. Rhamni | „ Auriflua | M. Furva | E. Lichenea |
| C. Edusa | M. Miniata | A. Fibrosa, ma | M. Bimaculosa |
| „ Hyale | L. Stramineola | „ Oculea | A. Occulta |
| P. Brassicæ | „ Griseola | M. Furuncula | H. Satura |
| „ Rapæ | „ Complana | C. Haworthii | C. Solidaginis |
| „ Napi | „ Complanula | C. Morpheus, b | H. Armigera |
| „ Daplidice | „ Pygmaeola | „ Cubicularis, b | „ Scutosa |
| L. Sinapis | „ Muscerda, ma | A. Valligera, b | A. Luctuosa |
| A. Galathæa, b | Œ. Quadra | „ Puta | P. Orchaleea |
| L. Megæra | N. Mundana | „ Suffusa | „ Chrysis |
| H. Semele | „ Senex | „ Saucia, e | „ Festucæ, ma |
| „ Janira | L. Trifolii | „ Lunigera | G. Libatrix |
| „ Tithonus | „ Quercus | „ Exclamationis | A. Tragopogonis |
| E. Blandina | C. Castrensis | „ Cursoria | „ Pyramidea |
| C. Pamphilus | „ Neustria | „ Nigricans | M. Maura |
| C. Cardui | O. Potatoria | „ Tritici, b | S. Anomala |
| V. Atalanta | C. Spinula | „ Aquilina, b | C. Fraxini, c |
| „ Io | P. Lacertinaria | „ Obelisca | „ Nupta |
| „ Urticæ | D. Faleataria, b | „ Agathina, he | „ Sponsa |
| „ Antiope | „ Hamula | Præcox | E. Vespertaria |
| „ Polychloros | „ Unguicula | „ Ravida, b | „ Apiciaria, e |
| T. Betula | C. Diluta | „ Pyrophila, b | R. Crataegata |
| „ Rubi, he | B. Perla | „ Lucerneæ | S. Illustraria |
| C. Dispar | „ Glandifera | T. Ianthina | C. Elinguaria |
| P. Argiolus | A. Psi | „ Interjecta | E. Tiliaria, c |
| „ Corydon | „ Auricoma | „ Orbona | „ Fuscantaria, e |
| „ Adonis | S. Musculosa | „ Pronuba | „ Erosaria |
| „ Alexis | L. Impura, b | N. Depuncta | „ Angularia |
| „ Ægon | „ Pallens, b | „ Plecta, b | G. Obscurata |
| „ Agestis | N. Fulva | „ C-Nigrum | D. Obscuraria |
| T. Alveolus, s | „ Neurica | „ Festiva, b | „ Torvaria |
| „ Tages | „ Geminipuncta, | „ Dahlii | E. Porata |
| P. Acteon | ma | „ Bella | „ Punctaria |
| „ Sylvanus | „ Cannæ, ma | „ Umbrosa, e | „ Trilinearia, b |
| „ Comma | „ Typha, ma | „ Neglecta, he | „ Omicronaria |
| A. Atropos | „ Crassicornis, | „ Xanthographa, e | „ Orbicularia |
| S. Convolvuli | e, ma | O. Suspecta | „ Pendularia |
| D. Euphorbiæ, c | G. Flavago | X. Citrago, e | A. Virgularia |
| „ Galii, m. | H. Nictitans | „ Aurago, e | „ Incanata |
| „ Livornica | „ Petasitis | C. Xerampelina, e | „ Imitaria, b |
| T. Ichneumoni- | „ Micacea | T. Subtusa, b | „ Aversata |
| forme | X. Scolopacina | „ Retusa | C. Pusaria |
| H. Sylvinus | „ Polyodon | E. Fulvago | „ Exanthemata |
| N. Tritophus | A. Australis | C. Trapezina | A. Citraria |
| „ Zieczac | H. Popularis | „ Pyralina | „ Gilvaria |
| L. Camelina | C. Graminis | „ Diffinis | A. Grossulariata |
| P. Monacha | C. Cytherea | „ Attinis | O. Autumnaria |
| H. Dispar | I. Testacea | E. Ochroleuca | „ Filigrammaria, e |
| S. Salicis | „ Dumerillii | P. Chi | L. Olivaria |

AUGUST.

IMAGOS.]

AUGUST.

| | | | |
|------------------|--------------------|---------------------|--------------------|
| E. Unifasciata | E. Sambucalis | S. Amænana | Dubrisana |
| E. Succenturiata | P. Forficalis | L. Cinerana | E. Atricapitana |
| " Denotata | " Stramentalis | " Nisella | " Dubitana |
| " Indigata | S. Stictalis | P. Immundana | " Carduana |
| " Constrictata | " Cinctalis | P. Solandriana | " Curvistrigana |
| " Expallidata | S. Lutealis | C. Fulvana | " Rupicola |
| " Sobrinata | " Ferrugalis | " Hohenwarthiana | " Roseana |
| " Pumilata | C. Scintillulana | " Caecimaculana | " Griscana |
| L. Viretata | E. Cembra | H. Bimaculana | " Vectisana |
| Y. Elutata | " Truncicolella | D. Acuminatana | " Anthemidana |
| M. Rubiginata | Cratægella | " Consortana | L. Francillana |
| M. Montanata | " Frequentella | S. Navana | D. Rutilana |
| " Galiata | " Phæoleuca | H. Paykulliana | A. Dipoltella |
| " Fluctuata | " Resinea | A. Lundana | T. Pallescentella |
| A. Berberata | " Lineola | " Obtusana | " Nigripunctella |
| C. Bilineata | " Angustea | " Comptana | " Semifulvella |
| " Gemmaria | " Pallida | B. Lanceolana | S. Pruni |
| P. Lignata | G. Mellonella | A. Conwayana | " Lutarea |
| " Polygrammata | A. Colonella | D. Contaminana | " Pyrella |
| " Vitalbata, 2 | M. Bipunctanus | " Loeslingiana | H. Vigintipunctata |
| S. Dubitata | H. Nebulella | C. Bergmanniana | tus |
| C. Immanata | " Nimbella | P. Schalleriana | " Plumbellus |
| " Prunata | A. Consociella | " Comparana | " Padellus |
| " Testata | " Tumidella | " Lipsiana | " Evonymellus |
| " Populata | " Angustella | " Cristana, to Nov. | " Padi |
| " Silaceata, b | M. Cribrum | " Permutana | A. Bipunctella |
| " Fulvata | " Suavella | " Variegana | P. Cruciferarum |
| " Pyraliata | " Pinguis | P. Aspersana | " Dalella |
| E. Mæniata | " Advenella | " Ferrugana | C. Sequella |
| " Mensuraria | N. Roborella | " Caledoniana | " Vittella |
| " Bipunctaria | P. Ornatella | T. Caudana | " Radiatella, to |
| A. Plagiata | " Palumbella | P. Profundana | Oct. |
| H. Rostralis | C. Falsellus | R. Arcuella | " Sylvella |
| H. Derivalis | " Inquinatellus | S. Wæberana | " Alpella |
| P. Costalis | " Geniculellus | " Janthinana | " Scabrella |
| " Farinalis | " Contaminellus | " Rufillana | " Xylostella |
| A. Cuprealis | " Selasellus | S. Compositella | T. Caudella |
| " Glaucinalis | " Tristellus | R. Buoliana | O. Sparganella |
| P. Puniccalis | " Pinetellus | " Pinicolana | P. Quercana |
| " Purpuralis | " Perlellus | P. Monticolana | D. Costosa |
| " Ostrinalis | " Warringtonellus | E. Saturnana | " Liturella |
| R. Sanguinalis | " Lithargyrellum | G. Pupillana | " Pallorella |
| H. Cespitalis | A. Gerningiana, he | " Hypericana | " Umbellana, to |
| E. Cingulalis | H. Angustana | A. Pratana | Oct. |
| " Anguinalis | B. Semifasciana | E. Striana | " Nanatella |
| S. Punctalis | " Hartmanniana | S. Micana | " Atomella |
| C. Lemnata | A. Betuletana | " Littoralis | " Arenella |
| P. Stratiotata | P. Salicella, b | C. Cespitana | " Alstræmeriana |
| A. Niveus, b | T. Icterana | " Latifasciana | " Purpurea |
| B. Asinalis | D. Angustiorana | A. Cnicana | " Hypericella |

AUGUST.

IMAGOS.]

AUGUST.

| | | | |
|---------------------|---------------------|-------------------|--------------------|
| D. Yeatiana | C. Hubnerella | " Miscella | Frolichiella |
| " Conterminella | P. Metzneriella | " Stephensi [May | Stettinensis |
| " Carduella | " Carlinella | " Epilobiella, to | Klemannella |
| " Orellana | " Neuropterella | C. Linneella | Schreberella |
| " Ciliella, to Oct. | C. Striatella | " Schrankella | Emberizæpen- |
| " Albipunctella | " Cytisella | H. Roesella | nella |
| " Emeritella | Y. Marginellus | A. Langiella | Tristrigella |
| " Pulcherimella | A. Palpella | S. Brunnichella | Scabiocella |
| " Douglasella | N. Durdhamella | E. Kilmunella | Trifasciella |
| " Weirella | D. Olivella, b | " Nigrella | Comparella |
| " Chærophylli | E. Lunaris | " Bedellella | L. Clerckella |
| " Nervosa | " Fuscescens | " Obscurella | P. Suffusella |
| " Badiella | " Pseudo-spretella | " Subnigrella | C. Laburnella |
| " Heraclina | " Quadripuncta | " Poæ | B. Aurimaculella |
| P. Gibbosella | A. Pygmaæana, to | " Megerella | " Ulmella |
| G. Hippophælla | Oct. | " Zoniarella | " Cristatella |
| " Cinerella | " Betuletella | " Cerusella | N. Atiricapitella |
| " Rufescens | " Perlepidella | " Biatomella | " Ruficapitella |
| " Populella | R. Erxlebella | T. Marginæa | " Pygmæella |
| " Lentiginosella | A. Treitschiella | L. Amyotella | " Pomella |
| " Velocella | A. Semitestacea | " Roboris | " Oxyacanthella |
| " Ericetella | " Spiniella | " Hortella | " Anomalella |
| " Mulinella | " Semifusca | " Sylvella | " Tiliæ, b |
| " Acuminatella | " Andereggella | " Cramerella | " Catharticella |
| " Domestica | " Aurulentella | " Tenella | " Headleyella |
| " Humeralis | Gœdartella | " Heegeriella | " Trimaculella |
| " Distinctella | Z. Heparilla, to | " Alnifoliella | " Salicis |
| " Costella | Oct. | " Irradiella | " Myrtillella |
| " Maculea | " Insignipennella, | " Lautella | " Flosfactella |
| " Tricolorella | to Oct. | " Bremiella | " Luteella |
| " Fraternella | G. Swederella | " Ulmifoliella | " Ignobiella |
| " Junctella | " Tringipennella | " Spinolella | " Arcuata |
| " Vicinella | C. Brongniardel- | " Cavella | " Atricollis |
| " Hubneri | lum | " Viminetorum | " Microtheriella |
| " Instabilella | O. Avellanella | " Salicicolella | " Acetosæ |
| " Atriplicella | " Anglicella | " Pomifoliella | " Betulicola |
| " Obsoletella | " Betula | " Torminella | " Plagicolcilla |
| " Sequax | " Torquillella | " Spinicolella | " Malella |
| " Albiceps | C. Ochrea | " Faginella | " Tityrella |
| " Tæniolella | " Binotapennella | " Carpinicolella | " Glutinosæ |
| " Immaculatella | " Virgaureæ | " Lantanella | " Prunetorum |
| " Anthylidella | " Squamosella | " Vacciniella | " Marginicolella |
| " Atrella | " Annulatella | " Quinqueguttella | T. Atrifrontella |
| " Bifractella | " Salinella | " Quercifoliella | " Squamatella |
| " Gemmella | G. Auroguttella | " Messaniella | " Immundella |
| " Næviferella | B. Somnulentella, | " Viminella | P. Rhododactylus |
| " Hermannella | O. V-flava [to Oct. | " Corylifoliella | " Ochrodactylus |
| " Pictella | C. Insecurellus | " Caldoniella | " Osteodactylus |
| " Brizella | " Chærophyllellus | " Nicellii | " Trigonodactylus |
| " Paupella | L. Raschkiella | " Dunningiella | " Microdactylus, 2 |

AUGUST.

IMAGOS.]

AUGUST.

- „ *Balioclytus* „ *Hieracii* „ *Loewii* „ *Tetradactylus*
 „ *Acanthodactylus* „ *Pilosello* „ *Lithodactylus* A. *Polydactyla*

The rather local, and by no means common *C. Xerampelina* appears at the end of this month, and through September. It is partial to both light and sweets. Both these means of capture should now be steadily pursued. All kinds of flowers in exposed situations should be carefully examined soon after sunset, for the Moths they attract. *A. Saucia*, and other local species, are often found on garden flowers and flowering shrubs. As the honey of most flowers has a stupefying effect on Moths, they may be easily boxed from the flower, or shaken into an umbrella first. In some seasons, owing to the abundance of flowers, captures at sugar are uncommon; flowers should always, therefore, be looked upon as a most important means of capture; and if THESE are sugared, as previously referred to, they will draw a larger number than if the sweetened mixture is applied in the ordinary manner upon tree-trunks. A lamp placed at a half-opened window will often yield good results. The power of bred females to attract the opposite sex should not be forgotten throughout the season.

Nearly all the species of *Lithocolletis* and *Nepticula* in the above lists are second appearances for the year.

LARVÆ.]

| ON ALDER. | A. Ligustri | BEECH. | C. Duplaris |
|---------------------------------------|--------------------------|----------------------------|-----------------------------|
| <i>C. Bicups</i> | E. Lunaria | S. Tiliæ | S. Illustraria |
| <i>N. Dromedarius</i> | „ <i>Illustraria</i> , 2 | D. Coryli | T. Crepuscularia |
| <i>L. Camelina</i> , 2 | B. Hirtaria | P. Bucephala | „ <i>Extersaria</i> , c |
| <i>A. Leporina</i> | E. Innotata, c | S. Fagi | E. Dolobraria |
| „ <i>Alni</i> | | H. Asellus | A. Prodromaria |
| <i>E. Apicaria</i> , b | | E. Alniaria | „ <i>Betularia</i> |
| <i>E. Tiliaria</i> , b | S. Populi | „ <i>Angularia</i> | G. <i>Papilionaria</i> , h |
| <i>T. Crepuscularia</i> | N. Tritophus | S. <i>Illustraria</i> , e | I. <i>Lactearia</i> |
| <i>E. Heparata</i> | „ <i>Zieczac</i> , c, 2 | E. Dolobraria, c | C. <i>Pusaria</i> |
| <i>A. Sylvata</i> | C. Bifida | T. <i>Consonaria</i> | M. <i>Hastata</i> |
| <i>C. Pusaria</i> | „ <i>Vinula</i> | E. <i>Trilinearia</i> | C. <i>Miata</i> |
| <i>L. Miaria</i> | L. <i>Dictæa</i> , c, 2 | G. <i>Papilionaria</i> , h | C. <i>Prasinana</i> |
| <i>C. Miniata</i> | P. <i>Palpina</i> , 2 | C. <i>Prasinana</i> | P. <i>Ferrugana</i> |
| <i>Y. Impluviaria</i> | C. <i>Curtula</i> | | C. <i>Siccifolia</i> |
| <i>C. Prasinana</i> | „ <i>Reclusa</i> | | L. <i>Padifoliella</i> |
| <i>T. Resplendellum</i> | C. <i>Or</i> | S. Tiliæ | B. <i>Demaryella</i> |
| <i>B. Cidarella</i> , c | „ <i>Ocularis</i> | S. Fagi | |
| APPLE. | A. <i>Alni</i> | N. <i>Dromedarius</i> | BRAMBLE. |
| <i>S. Ocellatus</i> | „ <i>Psi</i> | „ <i>Tritophus</i> | P. <i>Fusca</i> , in a case |
| <i>L. Camelina</i> , 2 | „ <i>Megacephala</i> | L. <i>Dictæoides</i> , 2 | T. <i>Deresa</i> |
| <i>C. Neustria</i> | „ <i>Leporina</i> | L. <i>Camelina</i> , 2 | A. <i>Batis</i> |
| <i>S. Pavonia-minor</i> | L. <i>Marginata</i> | P. <i>Bucephala</i> | A. <i>Menyanthidis</i> |
| H. Hirtaria | | D. <i>Coryli</i> | „ <i>Rumicis</i> |
| <i>S. Pariana</i> , 2 | BEDSTRAW. | P. <i>Lacerdinaria</i> | „ <i>Auricoma</i> |
| <i>C. Siccifolia</i> | D. <i>Galii</i> , c | D. <i>Falcataria</i> | E. <i>Fuscula</i> |
| | C. <i>Porcellus</i> | D. <i>Orion</i> | M. <i>Albicillata</i> |
| | „ <i>Elpenor</i> | A. <i>Aceris</i> | C. <i>Festaliella</i> |
| ASH. | M. <i>Stellatarum</i> | „ <i>Alni</i> | |
| <i>S. Ligustri</i> | M. <i>Tristata</i> | „ <i>Leporina</i> | BROOM. |
| <i>C. Ligniperda</i> , in the wood | A. <i>Sinuata</i> | T. <i>Populeti</i> | H. <i>Pisi</i> |
| | „ <i>Rubitata</i> | A. <i>Auricoma</i> | „ <i>Thalassina</i> |
| | E. <i>Satyrata</i> , c | H. <i>Contigua</i> | F. <i>Limbaria</i> , 2 |
| | | | C. <i>Obliquaria</i> |

AUGUST.

LARVÆ.

AUGUST.

| | | | |
|-----------------------------|----------------------|-----------------------------------|--------------------------------|
| CLEMATIS, &c. | C. Palpinella | NUT, &c. | , Alni |
| E. Haworthiata, m. fl. | C. Siccifolia | N. Dromedarius | „ Megacephala |
| „ Pumilata, 2 | B. Crataegi | L. Camelina, 2 | T. Populeti |
| „ Coronata, m, fl. 2 | | H. Contigua | E. Apicaria, b |
| P. Vitalbata, 2 | | S. Lunaria, e | T. Crepuscularia |
| | HEATH. | G. Papilionaria, h | A. Inornata |
| | S. Pavonia-minor | N. Pulveraria | P. Suffusella |
| | E. Cribrum | | |
| | A. Porphyrea | OAK. | PRIVET. |
| | E. Nanata, to Oct. | S. Fagi | S. Ligustris |
| | „ Castigata | D. Dodonaea | A. Ligustris |
| | F. Atomaria | „ Chaonia | N. Pulveraria |
| | H. Crassalis | L. Camelina, 2 | L. Viretata |
| | | P. Trepida, e | C. Cuculipennel- lum |
| | HONEYSUCKLE. | H. Ascellus | |
| | S. Fuciformis | D. Orion | RASPBERRY. |
| | X. Lithorhiza | P. Bucephala | T. Batis |
| | L. Polycommata | A. Aceris | M. Albicillata |
| | G. Albersana | „ Alni | C. Festaliella, under-side |
| | | E. Dolobraria | |
| | HOP, &c. | E. Erosaria | REED. |
| | D. Pudibunda | B. Consortaria | L. Cœnosa |
| | B. Lupulina, inside | C. Miata | L. Obsoleta |
| | C. Eximia | C. Prasinana | |
| | | G. Tripalella | |
| | GOLDEN ROD. | LIME. | REST HARROW. |
| G. Asteris | S. Tiliæ | PLANTAIN, &c. | P. Alexis |
| „ Gnaphalii | A. Psi | S. Menthrasti | H. Marginata |
| E. Pimpinellata | S. Lunaria, e | L. Exigua | „ Peltigera |
| „ Expallidata, c | | H. Palustris | P. Acanthodac- tylus |
| „ Coronata | | A. Rumicis | |
| „ Castigata | MAPLE. | POPLAR. | |
| „ Absinthiata, till Oct. | A. Aceris | S. Ocellatus | S. Populi |
| „ Centaureata, do. | L. Cucullina, e | Populi | „ Ocellatus |
| | A. Luteata | S. Apiformis, in the stems & r | C. Furcula |
| | S. Illustraria | C. Bifida | „ Vinula |
| | E. Omicronaria | „ Vinula | N. Zizzac, 2 |
| | | N. Tritophus | L. Dietœa, 2 |
| | GRASSES. | „ Zizzac, 2 | L. Camelina, 2 |
| C. Pamphilus, 2 | V. Urticæ | L. Dictœa, 2 | P. Palpina |
| B. Bankiana | „ Io | P. Palpina | G. Ilicifolia, and bilberry |
| | „ Atalanta | C. Curtula, e | S. Pavonia-minor |
| | G. C-Album, b | „ Reclusa, e | A. Alni |
| | S. Menthrasti | H. Ascellus | „ Salicis |
| | „ Lubricepeda | C. Or | „ Menyanthidis |
| | A. Urticæ | „ Ocularis | |
| | | A. Leporina | |
| | | | |
| | HAWTHORN. | | |
| L. Camelina, 2 | | | |
| C. Spinula, 2 | | | |
| C. Neustria | | | |
| T. Derasu | | | |
| A. Tridens | | | |
| A. Betularia | | | |
| S. Pariana, 2 | | | |
| S. Steinkelneriana | | | |

AUGUST.

LARVÆ.]

AUGUST.

| | | | |
|--------------------------------|--------------------------|-------------------------------|---------------------------------------|
| G. Libatrix | D. Carpophaga, b | A. Tridens | C. Furcula |
| E. Apiciaria | „ Capsincola, b | L. Padifoliella | A. Tridens |
| C. Pusaria | „ Cucubali, b | C. Lobella, e | G. Libatrix |
| „ Exanthemata | „ Conspersa, b, seeds | | T. Crepuscularia |
| L. Marginata | E. Afinata, b | | A. Inornata |
| L. Sexualisata | E. Venosata, b | S. Ocellatus | L. Sexualisata |
| „ Lobulata | | „ Populi | E. Clorana, in the terminal shoots |
| P. Hastiana | | C. Ligniperda, in the wood | P. Saligna |
| SILENE AND LYCHNIS. | | C. Vinula | E. Apiciaria, b |
| N. Saponariæ, b | G. C-Album | P. Palpina | |
| | C. Spinula, 2 | | |

| | | | |
|-------------------|---|--------------------------|------------------------------------|
| E. Cassiope | Poa annua, Festuca ovina, & small rushes on mountains | „ Satyrata | Scabious, &c. |
| A. Lathonia, b | Wild heartsease | „ Subnotata | Atriplex and cheno- podium |
| C. Fhlaes, 2 | Sorrel | „ Denotata, e | Pimpinella saxifraga |
| P. Alexis, 2 | Clover, trefoil, &c. | „ Exiguata, e | Barberry, &c. |
| A. Atropos | Potato, tea tree, jas- mine, and ash | T. Juniperata | Juniper |
| S. Ligustrum | Lilac, &c. | M. Fluctuata | Turnip, &c. |
| „ Convolvuli | Small bindweed | P. Comitata | Chenopodium |
| D. Galii, e | Fuschia, &c. | B. Fuscalis | Yellow rattle, seeds |
| S. Bombyliformis | Devil's bit scabious | P. Margaritalis | Seeds of wild mustard |
| C. Jacobæa | Ragwort | S. Palacalis | Umbels of carrot and pucedaneum |
| G. Rubricollis | Lichens, &c. | S. Fabriciana | Pellitory, &c. |
| „ Myrica | Myrica gale | C. Vibrans | Fleabane |
| A. Basilinea | Grains of wheat | E. Angustea | In moss |
| H. Dysodea | Lettuce buds and fl. | A. Colonella | Wax in nests of humble bees |
| „ Serena | Hawkweed, dande- lion, &c. | C. Prasinana | Hazel, &c. |
| H. Atriplicis | Dock, persicariae, &c. | P. Tristana | Mealy guelder rose |
| C. Perspicillaris | St. John's wort | S. Vacciniana | Bilberry |
| C. Lychnitis | Verbascum nigrum and lychnitis | C. Pomonella | In apples and pears |
| „ Chamomillæ | Wild chamomile | „ Funebrana | In plums |
| „ Umbratica | Sow thistle | A. Maritimana | Sea holly, to Oct. |
| A. Cordigera | Vaccinium | S. Steinkellneri- ana | Mountain ash, &c. |
| H. Uncana | Sedge | A. Fibulella, to | Speedwell |
| A. Bisetata | Dandelion | D. Propinquella | Under thistle leaves |
| A. Ornata | Thyme | „ Depressella | In umbels of parsnip |
| F. Atomaria | Centaurea, lotus, &c. | „ Pimpinellæ | Pimpinella saxifraga |
| C. Gemmaria | Polygonum and groundsel | „ Libanotidella | Libanotidella Athamanthalibanotis |
| E. Albulata | Rhinanthus crista- galli | G. Costella | Woody nightshade |
| E. Liniarata | Yellow toadflax, seeds and fl. | „ Anthyllidella | Clover, anthyllis, &c. |
| | | „ Paupella | Fl. heads of fleabane |

AUGUST.

LARVÆ.]

AUGUST.

- A. Conjugella ...In berries of mountain C. Wailesella.....*Genista tinctoria*
 C. AlbicostaSeeds of furze [ash] „ *Lotella**Lotus major*
 B. Somnulentella *Convolvulus* B. Frangulella ...*Buckthorn*
 A. TerminellaEnchanter's night-
 shade

VARIOUS TREES
AND PLANTS.

H. Humuli, r
 L. Quercus, h
 E. Castigata
 C. Russata

VARIOUS
PLANTS.

H. Dominula, h
 E. Lucipara
 A. Herbida, h
 H. Adusta

” *Oleracea*
 ” *Pisi*
 H. *Dipsacea*
 A. *Putris*
 M. *Persicaria*

P. *Meticulosa*
 P. *Gamma*
 V. *Maculata*
 C. *Quadrifasciaria*

Some Larvæ now begin to appear in the lists with the contraction “h.” signifying that they hyberate. All of these are now quite small, and few will repay the trouble and risk of keeping all the winter; for even with the food-plant in a growing state, large numbers of young hyberating Larvæ always die in confinement; they are, therefore, generally better left until the spring. Sometimes, however, part of a brood in confinement will complete its change to the perfect state in the autumn, while the other part will not do so until the spring. The young Larvæ may sometimes with advantage be transferred in the autumn to a known spot where their food-plant abounds, and collected in the spring.

C. Fureula may be frequently found resting on decayed leaves. P. Palpina seems to make a second appearance only in confinement. Besides the food-plants named, D. Coryli is also found on ash, hazel, oak, &c. P. Fusca, in its case, may occasionally be found on bramble from this month to June. It should not be forgotten that it occupies two years to go through its preliminary stages. H. Pisi will eat broom and other plants, but the common brake fern (*Pteris aquilina*) is its favourite food. T. Piniperda prefers the new shoots on the low branches. A. Betularia is more frequently taken on oak, elm, thorn, rose, &c., than on the birch from which it derives its name. It generally prefers oak. It will also, according to some observers, eat ivy. Beech is the favourite food of E. Dolobraria. When clematis is grown against or near a wall, P. Vitaldata may be discovered hidden in the crevices of the mortar, when not feeding. Although a Libanotidella is met with at Newhaven, there seems some doubt whether the true Libanotidella has been taken in this country.

AUGUST.

PUPÆ.]

AUGUST.

SUSPENDED, OR ATTACHED TO PLANTS, &c.

- A. Cardamines On grass stems, &c., in meadows, woods & hedges
 V. Atalanta Among nettles, generally in a chamber formed by united leaves
 „ Io and Urticæ Among nettles
 G. C-Album Among nettles, and on walls, &c.
 C. Cardui, b On, or near thistles

SPUN UP, UNDER MOSS, &c.

- | | | | |
|----------------|-----------------------|-----------------|----------------|
| At Alder | E. Tiliaria | At Poplar | C. Ocularis, e |
| „ Ash | , Fuscantaria | „ Willow | C. Nupta |
| „ Birch..... | O. Macilenta, E. Ti- | | E. Apiciaria |
| | liaria, C. Psittacata | „ Various trees | P. Populi |

SUBTERRANEAN.

| AT ELM. | LIME. | OAK. | |
|-------------------|------------------------|-----------------|-------------------------|
| P. Cassinea, deep | X. Ferruginea | D. Dodonea, e | C. Ridens, tender |
| X. Gilvago | , Citrago | „ Chaonia, m. | C. Aprilina |
| „ Ferruginea | , Cerago | H. Aurantiaria | H. Protea |
| H. Aurantiaria | | | H. Pennaria |
| At Ash | C. Xerampelina, in a | At Birch | C. Flavicornis |
| | tender, brittle cocoon | „ Willow | C. Miata |
| „ Aspen & black | | „ Various trees | N. Xanthographa, H. |
| „ poplar | T. Populeti, deep | | Pennaria, „ Defoliaria. |

VARIOUS—H. Rupicapraria, e, „, Lucophaearia, „, Progemmaria, A. Æscularia, C. Brumaria, O. Dilutata ; as well as Teniocampæ, Orthosia, Xylinidæ, and many others.

The middle and end of this month is the best time to commence Pupa digging, which from this date till the winter should be followed as a regular part of the collector's operations, and as a means of securing many species not otherwise to be got. The insects thus obtained come to hand in the finest condition ; and many curious varieties often appear.

AUGUST.

IMAGOS.]

| SEPTEMBER. | | |
|--------------------|------------------|------------------|
| G. Rhamni | ., Macilenta | O. Dilutata, e |
| C. Edusa | A. Rufina | ., Filigrammaria |
| „ Hyale | „ Pistacina | E. Sobrinata |
| C. Pamphilus | „ Lunosa | T. Variata, 2 |
| C. Cardui | „ Litura | C. Fluvia, 2 |
| V. Atalanta | C. Vaccinii, e | P. Lapidata |
| „ Io | „ Spadicea, e | S. Dubitata |
| „ Antiepa | „ Erythrocephala | C. Psittacata |
| V. Polychloros | X. Citrago | „ Miata |
| „ Urticæ | „ Cerago | „ Immanata |
| G. C-Album | „ Flavago | C. Testata |
| C. Phæas | „ Aurago | E. Cervinata |
| P. Alexis | „ Gilvago | C. Spartiata |
| A. Atropos | „ Ferruginæa | H. Rostralis |
| S. Convolvuli | C. Xerampelina | P. Farinalis, 2 |
| D. Euphorbiae, m | T. Retusa | B. Asinalis |
| „ Livornica | E. Fulvago, b | S. Ferrugalis |
| C. Celerio | C. Trapezina | „ Hybridalis |
| M. Stellatarum | P. Chi | S. Fabriciana, 2 |
| D. Cæruleocephala | „ Flavocincta | „ Pariana |
| O. Antiqua | E. Nigra | C. Vibrana |
| D. Pulchella | „ Lichenea | E. Angustea |
| T. Crategi | M. Oxyacanthæ | E. Ficella |
| C. Diluta | A. Aprilina | C. Tristellus |
| N. Fulva | P. Meticulosa, 2 | „ Geniculens |
| „ Typhae, ma | „ Empyrea | P. Immundana |
| „ Crassicornis, ma | H. Protea | A. Subarcuana |
| G. Flavago | C. Vetusta | B. Lanceolana |
| H. Micacea | „ Exoleta | „ Contaminana |
| A. Australis | X. Rhizolitha | C. Mixtana |
| H. Hispida | „ Semibrunnea | O. Scotana |
| „ Popularis, b | „ Petrificata | „ Scabrina |
| C. Graminis, b | H. Armigera | P. Schalleriana |
| L. Testacea | „ Peltigera | „ Comparana |
| L. Dumerilii | P. Festucæ, ma | „ Tristana |
| „ Cespitis | „ Gamma | „ Lipsiana |
| C. Haworthii | G. Libatrix | „ Maccana |
| A. Puta | A. Tragopogonis | „ Hastiana |
| „ Valligera, b | „ Pyramidea | „ Permutana |
| „ Cursoria, b | S. Anomala | „ Ferrugana |
| „ Suffusa | C. Fraxini | P. Annulatella |
| „ Saucia | „ Nupta | „ Dalella |
| „ Segetum | E. Apiciaria | C. Sylvella |
| N. Glareosa | R. Cratagata, 2 | „ Radiatella |
| „ C-Nigrum | E. Tiliaria | „ Nemorella |
| „ Bella | „ Fuscantaria | T. Caudella |
| „ Umbrosa | „ Erosaria | D. Pallorella |
| „ Xanthographa | „ Angularia | „ Liturella |
| O. Lota | A. Citraria | „ Arenella |

SEPTEMBER.

"Second appearances" are now becoming more common. Among the Bombyces especially, it is not unusual to find two series of transformations in the twelve months; but, by a wise provision of nature, the development of a portion of the brood is sometimes retarded. With some of the Geometrina, THREE broods are regularly obtained in confinement; while some of the Bombyces, Psycidiae, and Coleophore, require twenty-four months, and even more, to enable them to complete their round of metamorphoses.

It is impossible to detail the mode best adapted for the capture of each individual species, in this or any other month; it will be sufficient generally to remind the collector that the character of the locality in which he happens to be, and the nature of the species he is seeking, must be his chief guide, not forgetting the fact that, however far Moths may fly, they generally return for rest to, or near, what were their food-plants when Larvae. There is no more a "royal road" to rarities than there is to learning. The collector may, however, be reminded with advantage of the value of the beating-stick; while by sweeping, many species, both in the Imago and Larva states, which would remain invisible, are brought to light. All kinds of places form a harbour for insects. The beating-stick should be energetically applied to heaps of dry rubbish, masses of grass, reeds, weeds, &c., tangled underwood, haystacks, and thatch (the latter harbours many Depressaria, &c.); while "scarecrows," tree trunks, leaves, flowers, palings, posts, fences, walls, heaps of stones or sticks, logs of wood, out-houses, roofs, &c., all furnish lodgment-space, and a means of concealment to various species, and should be scanned vigilantly. Vigilance, indeed, is especially required, for many species closely resemble the substances on which they are in the habit of resting.

LARVÆ.]

SEPTEMBER.

| | | | |
|-----------------------|---------------------|--------------------|-------------------------|
| ON ALDER. | L. Dictæa, do. | P. Dictæoides, 2 | M. Oleracea |
| N. Dromedarius | L. Camelina, 2 | P. Lacertinaria, 2 | E. Subnotata |
| L. Camelina, 2 | C. Reclusa | D. Hamula, 2 | P. Comitata |
| D. Coryli | " Curtula | C. Duplaris | CHICKWEED. |
| D. Falcataria, 2 | C. Or | " Fluctuosa | C. Cubicularis |
| A. Leporina | L. Marginata | " Flavicornis, b | C. Ferrugaria, 2 |
| " Alni, b | E. Dolobraria | A. Leporina | CLEMATIS. |
| A. Betularia | S. Undulata | A. Auricoma | I. Vernaria, h |
| C. Pusaria | | M. Margaritata, h | E. Coronata, 2 |
| T. Crepuscularia | BEECH. | T. Laricaria | P. Tersata |
| E. Orbicularia | L. Camelina, 2 | E. Dolobraria | " Vitalbata |
| E. Heparata | D. Pudibunda | S. Illustraria, 2 | A. Strigillaria |
| E. Exiguata, 2 | D. Coryli | A. Betularia | C. Saturatella, h |
| Y. Impluviata | S. Fagi | Prodromaria | CABBAGE, &c. |
| P. Tetraquetra | D. Unguicula, 2 | " Extersaria | P. Brassicæ |
| N. Glutinosa, 2 | L. Testudo | G. Papilionaria, h | " Rapæ |
| " Alnetella | M. Margaritata, h | I. Lactearia | M. Brassicæ |
| L. Frolichiella, 2 | S. Illustraria, 2 | E. Pendularia | M. Fluctuata, 2 |
| " Stettinensis | E. Dolobraria | C. Pusaria, 2 | C. Propugnata, 2 |
| " Klemannella | A. Betularia | " Rotundaria | P. Forficalis, 2 |
| " Alnifoliella | T. Consonaria | H. Barbalis | P. Cruciferarum, 2 |
| B. Cidarella | G. Papilionaria, h | A. Prolongana | CHENOPODIUM. |
| APPLE, &c. | E. Trilinearia | P. Tetraquetra | H. Chenopodii |
| C. Pomonella, in- | L. Faginella, 2 | G. Proximella | " Atriplicis |
| side, also pears | C. Grossana, nuts | A. Torquatella | CONVOLVULUS. |
| S. Pyrella | BERRY. | O. Loganella | B. Sonnulentella |
| L. Pomifoliella | A. Berberaria | L. Ulmifoliella, 2 | E. Sambucus |
| C. Scitella | E. Exiguata | " Cavella | P. Pterodactylus |
| N. Malella, 2, wild | BEDSTRAW. | L. Clerckella | ELM. |
| ASH. | D. Gallii | N. Luteella | L. Rubi, h, nearly |
| S. Ligustri | E. Satyrata | " Continuella | full-fed |
| C. Ligniperda, in | A. Sinuata | BRAMBLE. | V. Polychloros, s, h |
| the wood | M. Occellata | " Tristata | S. Tiliae |
| A. Ligustri | " Tristata | Rivata | D. Pudibunda |
| S. Illunaria, 2 | " Rivata | " Biriviata | A. Psi |
| " Illustraria, b, 2 | H. Galiata | A. Rubidata | A. Betularia |
| " Lunaria, b | A. Rubidata | E. Lineolata | S. Lunaria |
| O. Bidentata | H. Rectilinea | BILBERRY. | T. Crepuscularia |
| E. Innotata | H. Crassalis | A. Auricoma | A. Torquatella |
| " Exiguata, 2 | BIRCH. | H. Rectilinea | L. Schreberella, 2 |
| G. Syringella | N. Dromedarius | E. Fuscula | " Tristrigella |
| ASPEN. | N. Tritophus | N. Viridata | N. Marginicolella |
| S. Populi | " Ziezac, 2, to end | M. Albicillata | FIR. |
| N. Tritophus | of Oct. | C. Fagella | E. Fasciaria, h |
| " Ziezac, 2, to end | L. Camelina, 2 | L. Musculana | M. Litrata |
| P. Palpina, do. | D. Falcataria, 2 | C. Paripennella | F. Piniaria, on the |
| | S. Fagi | H. Thalassina | high branches, |
| | | F. Limbaria, 2 (?) | and larch |
| | | C. Obliquaria | |

SEPTEMBER.

LARVÆ.]

SEPTEMBER.

| | | |
|---|-----------------------------|-----------------------------|
| N. Abietella, in the C. Scitella cones and rotten N. Ignobiella, 2 wood | MOUNTAIN ASH. | " Roboraria, h |
| E. Similella, under,, Regiella dead bark | C. Spinula | " Consortaria |
| HEATH. | A. Tridens | E. Porata |
| GOLDEN ROD, &c. | H. Pisi | " Punctaria |
| C. Asteris | A. Betularia | H. Barbalis |
| " Gnaphalii | S. Steinkellneriana | A. Mitterbacheriana |
| E. Pimpinellata | O. Scoticella | G. Triparella |
| " Absynthiata | MYRICA GALE. | G. Swederella, 2, in cones |
| " Coronata | A. Menyanthidis | T. Complanella |
| " Castigata | A. Porphyrea, h | L. Amyotella, 2, under-side |
| " Centaureata | A. Myrtilli | " Roboris |
| " Expallidata, fl | B. Cinctaria | " Hortella |
| " Vulgata | M. Belgaria | " Cramerella |
| " Pernotata | P. Hippocastanaria | " Heegeriella |
| B. Terrealis, fl | E. Nanata | " Irradiella |
| C. Virgaureæ, e | " Castigata | " Lautella |
| P. Tephradactylus, h | " Minutata | " Quercifoliella |
| GRASSES. | H. Crassalis | |
| A. Galathea, h | HONEYSUCKLE. | PLANTAIN. |
| L. Ægeria | L. Emberizæpen-nella | S. Paniscus |
| L. Comma | " Trifasciella | N. Plantaginis, h |
| C. Cytherea, h | HOP. | P. Fuliginosa, h |
| A. Gemina | B. Lupulina, inside | S. Lubricepeda |
| " Unanimis, h | C. Eximea | L. Exigua, m |
| A. Exclamationis, r | HORNBEAM, &c. | POPLAR. |
| HAWTHORN. | M. Margaritata | S. Populi |
| L. Camelina, 2 | L. Tenella, 2, un-der-side | N. Tritophus |
| D. Pudibunda | " Carpinicolella | C. Bifida |
| C. Spinula | HORSERADISH, &c. | N. Zizcac, 2 |
| A. Tridens, to end of Oct. | Y. Fluctuata, 2 | P. Dictæa, 2 |
| R. Crategata | P. Forficalis, 2 | P. Palpina |
| A. Betularia | LICHENS. | C. Curtula |
| S. Illunaria | G. Rubricollis | " Reclusa |
| " Lunaria | C. Lichenaria, h | A. Leporina |
| N. Viridata | LIME. | C. Ocularis |
| E. Exiguata | S. Tiliæ | T. Crepuscularia |
| C. Fagella | C. Corylata | P. Hostilis |
| S. Steinkellneriana | N. Tiliæ | G. Stigmatella, in cones |
| S. Pyrella | MAPLE. | L. Comparella, 2 |
| O. Anglicella | S. Illustraria | RASPBERRY. |
| C. Paripennella | E. Omicronaria, 2 | L. Trifolii, h |
| L. Atra, berries | G. Scriptella | M. Albicillata |
| L. Pomifoliella, 2 | L. Sylvella, 2 | H. Tarsipennalis |
| " Corylifoliella | | |

SEPTEMBER.

LARVÆ.

REED.

L. Obsoleta
S. Ulvae
S. Venosa

ROSE.

A. Tridens
C. Gryphipennella,
to May
,, Paripennella

SWALLOW.

S. Populi, s
S. Bembeciformis,
in the wood

N. Ziczac, 2

P. Palpina

C. Reclusa, s, 2

A. Tridens

E. Orbicularia

C. Rotundaria

„, *Exanthemata*, 2

E. Exigua

M. Alternata

„ Notata

L. Marginata

L. Sexalisata

S. Undulata, e

G. Notatella

G. Stigmarella, in

twisted leaf

cones

C. Viminetella, h

L. Spinolella, 2

„ Salicolella

„ Quinqueguttella

„ Viminella

H. W-Latinum

C. Inflatæ

SLOE.

H. W-Latinum

C. Inflatæ

SILENE.

H. W-Latinum

C. Inflatæ

SILVER-DOGWOOD.

H. W-Latinum

SEPTEMBER.

LARVÆ.]

SEPTEMBER.

| | | | |
|-------------------|-----------------------------|-------------------|---------------------------------|
| H. Tetragonana. | Under moss on beech | C. Laricella |Larch |
| A. Lundana |Vicia sepium, & La- | " Argentula |Yarrow, seeds |
| | thyrus pratensis | " Caespitiella, | |
| C. Funebrana | ...In plums | " to May |Rush, seeds |
| P. Rugosana |Red-berried briony | C. Chaerophylle- | |
| C. Nigromacula | Seed-heads of rag- | lus |Umbelliferæ |
| na | wort | A. Terminella | ...Circæa lutetiana |
| D. Marginipunc- | Bramble, hazel, pop- | L. Breminiella, 2 | ...Vicia sepium |
| | tella lar, also other larvæ | " Viminetorum | ..Osier |
| T. Granella |Corn in granaries | " Viminella | ...Ditto |
| L. Prælatella, to | | " Torminella | ...Sorbus torminalis |
| May |Wild strawberry | " Lantanella | ...Viburnum lantana |
| G. Malvella |Hollyhock | C. Laburnella | ...Laburnum |
| " Nigricostella |Lucerne | " Frangulella | ...Buckthorn |
| " Subocellea | ...Marjoram | N. Arcuata |Potentilla fragari- |
| A. Treitchkiella, | | | astrum |
| e, 2 |Dogwood | " Acetosæ, 2 | ...Sorrel |
| G. Syringella |Lilac, privet, &c. | P. Loewii |Erythræa centaurea |
| " Omisella |Mugwort | | & Chlora perfoliata |
| " Phasianipen- | Polygonum hydro- | | ,, Microdactylus Hemp, agrimony |
| nella | piper | | |

| VARIOUS TREES AND PLANTS. | „ Illunaria |
|------------------------------|--------------|
| H. Lupulinus, r | A. Betularia |
| P. Bucephala | O. Bidentata |
| D. Fascelina, h | A. Ulmata |
| O. Antiqua | E. Exiguata |
| A. Tridens | „ Castigata |
| „ Aceris | C. Fagellæ |
| „ Psi | „ |
| „ Rumicis | „ |

| VARIOUS PLANTS. | R. Tenebrosa |
|-----------------|--------------|
| E. Russula, h | E. Lucipara |
| A. Caja, h | A. Herbida |

| S. Menthrasti | H. Oleracea |
|----------------|-------------------|
| „ Papyratia | „ Dipsacea, lina- |
| „ Lubricepeda | ria, &c. |
| D. Mendica | P. Gamma |
| M. Persicariae | M. Typica, h |
| „ Brassicæ | V. Maculata |
| P. Meticulosa | A. Cinerea, r |
| R. Tenebrosa | E. Centaureata |

It is scarcely necessary to remind the reader that at night many Larvæ may be easily found, which are wholly out of reach in the day-time. This should be borne in mind at whatever period of the year Larvæ are searched for.

C. Elpenor frequents damp situations, while its commoner congener, Porcellus, seems confined to dry places. C. Reclusa regularly appears twice a-year in confinement; but when at large, its habits do not appear so regular. L. Quercus will occasionally feed all the winter if tolerably mild. The eggs of C. Xerampelina are laid this month. They soon hatch, and the Larvæ feed only by night, on ash, though they will sometimes eat thorn and Viburnum lantana. Having attained a fair size, they hibernate, and commence feeding again in the spring, though they are of sluggish habit. When May arrives, they spin, under ground, a very neat and compact boat-like cocoon, in which they remain some time before changing to Pupæ; thus resembling X. Citrogo and Aurago, which sometimes remain three months in their cocoons before changing.

A. Tridens generally appears rather earlier than Psi. B. Amataria may be found adhering to the veins of leaves. E. Absynthiata and Centaureata feed from August to October on flowers of ragwort, golden rod, A. Millefolium, E. Cannabinum, &c.; and Centaureata also feeds upon the Pimpinelle; E. Coronata upon E. Cannabinum and Angelica; E. Assimilata from the end of August to the end of October, on the under-side of the leaves of black currant, and upon the leaves and female flowers of the hop. E. Sambucalis may be found hiding among the corymbs of elder. L. Lantanella, which hibernates and changes to Pupa in April, is best collected in November.

SEPTEMBER.

PUPÆ.]

SEPTEMBER.

SUSPENDED, OR ATTACHED TO PLANTS, &c.

- P. Machaon On stems of Umbelliferæ in fens & marshes
 A. Cardamines and L. Ægeria On grass stems, &c.

SPUN UP, UNDER MOSS, &c.

- C. Bifida, „ Vinula On poplar
 „ Furecula, „ Vinula On willow
 D. Falcataria Between united beech leaves
 „ Unguicula Ditto birch ditto
 P. Populi At various trees
 C. Ridens On grass, bramble, and loose oak bark

SUBTERRANEAN.

At Alder ..N. Dromedarius. At Ash...E. Illunaria. At Birch...L. Dictœoides.

| ELM. | D. Dodonea | B. Hirtaria | B. Hirtaria |
|-----------------------|---------------|----------------|---------------|
| P. Pilosaria, to Jan. | „ Chaonea | A. Prodromaria | WILLOW. |
| H. Aurantiaria | T. Instabilis | „ Betularia | P. Palpina, e |
| „ Defoliaria | „ Gothicæ | N. Hispidaria | L. Dictæa |
| B. Hirtaria | „ Stabilis | POPLAR. | B. Hirtaria |
| A. Prodromaria | „ Cruda | P. Palpina, e | |
| „ Betularia | „ Munda | L. Dictæa | |
| OAK. | „ Miniosa | T. Populeti | |
| P. Trepida | P. Pilosaria | | |

SEPTEMBER.

IMAGOS.]

OCTOBER.

| | | | |
|------------------|----------------|----------------|----------------------------------|
| V. Atalanta | H. Croceago | C. Brumata | Ferrugana |
| „ Antiopa | X. Ferruginea | „ Boreata | C. Phryganella |
| „ Polychloros | D. Templi | O. Dilutata | T. Ferruginella |
| C. Nerii | E. Lutulenta | T. Juniperata | T. Caudella |
| „ Celerio | M. Oxyacanthæ | Coniferata | D. Propinquella |
| P. Plumigera | A. Aprilina | C. Fluvia, 2 | „ Depressella |
| P. Cassinea | P. Meticulosus | C. Psittacata | C. Hubnerella |
| O. Antiqua | Empyrea | „ Miata | Z. Fasciapennella |
| N. Crassicornis | C. Vetusta | E. Cervinata | „ Hepariella |
| O. Lota | „ Exoleta | C. Spartiata | G. Stigmatella |
| „ Macilenta | L. Exigua | S. Ferrugalis | „ Semifascia |
| N. C-Nigrum | X. Rhizolitha | E. Angustea | C. Chacrophyllellus, to April |
| „ Xanthographa | „ Semibrunnea | E. Ficella | L. Padisoliella |
| A. Pistacina | „ Petrificata | D. Contaminata | P. Pterodactylus |
| „ Litura | H. Armigera | C. Mixtana | „ Acanthodactylus |
| C. Vaccinii | P. Gamma | O. Scotana | A. Polydactyla |
| „ Spadicea | H. Pennaria | „ Scabrina | |
| „ Erythrocephala | E. Alniaria | P. Tristana | |
| S. Satellitia | H. Aurantiaria | „ Maccana | |
| D. Rubiginea | „ Defoliaria | „ Hastiana | |

Although the cold winds and occasional frosts which now begin to visit us tell of the approach of winter, the Collector must not yet suppose the "season" closed. This is the great month for captures at Ivy, which is now in bloom; and a large number of the autumnal species are attracted to the stupefying blossoms. The most delicious "sugar" ever concocted, evidently falls far short, in gastronomic attraction, of the honey of the fascinating Ivy, which is regularly resorted to every night soon after dusk, until severe frost kills off those species which do not hibernate, or makes those that do, retire to their winter quarters. The short period required for the intoxication, or stupefaction of the Moths, is remarkable. The blossoms may be beaten or shaken into an umbrella, or clap-net, when the Moths are easily boxed. Sometimes the labours of the Collector are rewarded by the capture of the rare D. Rubiginea. However, if quality is not always represented at this green and ungaudy floral feast, quantity generally is, and the tyro may often date his first acquisition of duplicates from his numerous captures at Ivy. This, however, is not the only attraction to Moths. As before observed, flowers generally are much frequented by them; and during this and the previous month they may be often found at night imbibing the sweet juices from the flowers of the common stinging-nettle.

It has not been deemed necessary to mark the Imagos which hibernate, most of which are again referred to on their re-appearance in the spring.

LARVÆ.]

ON APPLE.

L. Clerckella
N. Pomella
„ Atricollis

ATRIPLEX, &c.

E. Subnotata
G. Naviferella
„ Hermannella

BEECH.

E. Dolobraria

N. Tityrella, in the
yellow leaves

BIRCH.

N. Dromedarius
L. Dictæoides, 2
C. Fluctuosa, 2
G. Proximella
O. Betulae
L. Ulmifoliella
N. Argentipedella
„ Betulicola

BRAMBLE.

O. Gonostigma, h
O. Sambucaria, h
C. Flagella

CLEMATIS, &c.

I. Vernaria, h
P. Tersata
" Vitalbata

ELDER.

O. Sambucaria, h
E. Sambucalis

GRASSES.

O. Potatoria
P. Leucophaea
A. Gemina

HAWTHORN.

D. Pudibuda
P. Chrysoræha, h
" Auriflua, h

ELDER.

A. Tridens
A. Prunaria

OCTOBER.

LARVÆ.]

OCTOBER.

| | | | |
|------------------|--------------------|----------------------|-----------------------------|
| A. Betularia | Minutata | Quercifoliella | SALLOW. |
| E. Exiguata | P. Hippocastanana | Messaniella | C. Reclusa, b |
| C. Fagella | O. Juncicolella | B. Ulrella | E. Exiguata, 2 |
| L. Pomifoliella | C. Pyrrhulipenella | N. Atricapitella | S. Undulata, be- |
| " Corylifoliella | | | tween the leaves |
| N. Pygmaeella | IVY. | " Ruficapitella | |
| " Oxyacanthella | P. Argiolus, bur- | " Subbimacuella, | N. Salicis |
| " Ignobilella | rows in the un- | chiefly in fallen | |
| " Atricollis | expanded fl. | and very yellow | TEASLE. |
| HAZEL. | buds | leaves | |
| O. Bidentata | O. Bidentata | POPLAR. | C. Morphæus |
| O. Gonostigma, h | O. Sambucaria, h | L. Dictæa, b, 2 | A. Gentianana, h |
| O. Bidentata | OAK. | C. Curtula, b | full-fed in the heads |
| HEATH. | O. Gonostigma, h | ROSE. | E. Roseana, h, in the heads |
| A. Porphyrea, h | O. Bidentata | | WILLOW. |
| N. Neglecta | B. Ithomoidaria | T. Angusticolella, h | C. Reclusa, b |
| A. Myrtilli | T. Complanella, h | N. Anomalella | C. Ligniperda, in |
| E. Nanata | L. Lautella | „ Angufasciella | the wood |

| | | |
|---------------------|--|---|
| E. Blandina | Moorland poa, and meadow grass | „ Helveticaria ... Juniper |
| T. Tipuliforme ... | Currant, in the stems | Assimilata ... Black currant & hop |
| Z. Æsculi | In wood of elm, horse chestnut, pear, apple &c. | C. Suffumata..... Ragwort M. Galiata..... Bedstraw, &c. |
| C. Ligniperda ... | In wood of ash, &c. | P. Lupulina In hop stems |
| C. Cubicularis ... | Chickweed | E. Sambucalis ... Convolvulus, &c. |
| H. Pisi | Brake fern | P. Forficalis, 2 ... Cabbage, horse-radish, &c. |
| H. Hispida..... | Plantain, grass, &c. | E. Interpunctella Pigs, dried insects, &c |
| A. Prunaria | Plum, &c. | H. Nimbella Composite flowers |
| A. Scutulata | Pimpinella saxifraga, fl. | M. Cribrum In thistle stems |
| A. Plagiata, h, 2 | St. John's wort | M. Ceratonia..... Chesnuts, &c. |
| S. Clathrata | Medicago and Hedysarum | N. Abietella In fir cones & rotten firs |
| M. Euphorbiata | Spurge | C. Phragmitellus Reed |
| A. Strigillaria ... | Broom | E. Regiana Under birch and sycamore bark |
| L. Olivaria | Galium | E. Angustana, to April In the heads of plantago |
| E. Succenturiata | Seeds of yarrow and wormwood | E. Germarana ... In hips of rose |
| " Absynthiata ... | Ragwort, yarrow, golden rod, groundsel, &c. | I. Muscalella, to Feb. Fallen leaves " Oehlmanniella, ditto Ditto |
| " Denotata | Pimpinella saxifraga | A. Degeerella, to March Wood anemone |
| " Expallidata ... | Golden rod | H. Viginipuncta- |
| " Centaureata ... | Ragwort, Pimpinella, H. Viginipuncta-yarrow, golden rod, &c. | tus Sedum telephium |

OCTOBER.

LARVÆ.]

OCTOBER.

- | | |
|---|---|
| A. Bipunctella ... Viper's bugloss | C. Solariella ... Greater stitchwort |
| " Decemguttella Lithospermum | " Binotapennel- |
| G. Malvella In seeds of hollyhock | " la, to May ... In stems of salicornia |
| " Bifractella ... Conyza squarrosa, | Discordella, h Lotus corniculatus |
| " and fleabane | " Argentula Yarrow, seeds |
| .. Brizella Flower stems of thrift, | Albitarsella ... Ground ivy |
| " Inopella, query { Flower heads of | " Virgaureæ ... Golden rod, seeds |
| Paupella, 2 } fleabane | " Annulatella ... Chenopodium and |
| " Subocella Marjoram | Atriplex, seeds |
| P. Lappella, to | A. Æratella Knot grass, in galls |
| Feb. In seeds of burdock | L. Clerckella Cherry, &c |
| " Metzneriella, Below the seeds of | N. Viscerella Elm |
| to Feb. knapweed | " Catharticella. .Buckthorn |
| " Carlinella, do. Ditto of Carlina vul- | " Septembrella. .Hypericum |
| garis | " Argyropeza ... Aspen |
| Œ. Flavimacu- | " Myrtillella ... Bilberry |
| lilla Seeds of Angelica | " Flosiactella ... Nut and hornbeam |
| sylvestris | " Marginicollella Elm |
| A. Treitschkiella Dogwood | " Microtheriella Nut and hornbeam |
| G. Aurogutella ... Hypericum | P. Loewii Erythrea centaurea |
| O. Avellanella ... Nut | Microdactylus ... Hemp agrimony, in |
| T. Granella Corn in granaries | the stems |
| G. Cerealella, h...Ditto | |

VARIOUS PLANTS.

- | | |
|------------|--------------|
| A. Tridens | R. Tenebrosa |
| ,, Psi | H. Suasa |
| | N. Plecta |

P. Meticulosa

H. Oleracea

The remarks under last month, respecting hibernating Larvae, apply equally to this. A. Scutulata hibernates, and in April begins feeding again on flowers of Anthriscus, and is full-fed at the end of the month.

PUPÆ.]

OCTOBER :

(AND THROUGH THE WINTER AND SPRING.)

SUSPENDED, OR ATTACHED TO PLANTS, &c.

- | | |
|---------------------------|---|
| P. Machaon | On stems of Umbelliferæ in fens and marshes |
| P. Brassicæ, Rapæ, & Napi | On palings, walls, &c., of gardens |
| A. Cardamines..... | On grass stems, &c. |
| L. Ægeria | Ditto |

SPUN UP, UNDER MOSS, &c.

- | | |
|----------------|---|
| On Alder | C. Bicuspidis, on the trunk; O. Bidentata; Y. Im- |
| " Ash | pluviastra |
| | A. Ligustræ, A. Triplasia, , Urticæ, E. Innotata |

OCTOBER.

PUPÆ.]

OCTOBER.

| | |
|-------------------------|---|
| ,, Beech | D. Coryli, E. Dolobraria, T. Consonaria, H. Nemoralis, r |
| ,, Fir | L. Rubricollis, O. Bidentata |
| ,, Hawthorn | E. Exiguata, " Castigata, " Dodoneata, " Vulgata |
| ,, Oak | A. Aceris, E. Dolobraria, T. Laricaria, E. Abbreviata, " Dodoneata |
| ,, Poplars | C. Bifida ; " Vinula, near the root ; C. Curtula, e, between the dead leaves ; A. Megacephala ; C. Or, and " Occularis, among dead leaves, or between the leaves, not later than the first week in the month. |
| ,, Sycamore | E. Regiana |
| ,, Willow | C. Furcula, and Vinula, on the trunks ; C. Recclusa, e, between the leaves ; A. Megacephala, under loose bark |
| ,, or near Heaths | H. Pisi, " Thalassina |

AT ROOTS OF VARIOUS TREES.—L. Camelina, " Cucullina, P. Menthastis, " Lubricepeda, D. Mendica, under moss on trees bordering ditches ; O. Pudibunda, A. Psi, " Tridens, M. Persicaria, O. Bidentata, E. Vulgata, under moss on rotting trunks ; and many other species.

AMONG FALLEN LEAVES.—Oak—L. Roboris, Hortella, Amyotella, Lau-tella, Quercifoliella, Heggeriella, Cramerella. Beech—Faginella. Hornbeam—L. Carpinicolella, Tenella

SUBTERRANEAN.

| | |
|-------------------|--|
| At Alder | N. Dromedarius, A. Alni, |
| ,, Ash | S. Ligustri, B. Hirtaria |
| ,, Beech | T. Consonaria |
| ,, Elm..... | S. Tilia ; P. Cassinea, b, deep ; E. Lanestrus, s, on the surface of the ground ; A. Putris, A. Betularia, P. Pilosaria, H. Ruptaria, A. Æscularia, C. Brumata |
| ,, Hawthorn | E. Lanestrus, on the surface, among dry leaves, &c. |
| ,, Linie | S. Tilic, H. Ruptaria |
| ,, Oak | D. Dodonea, very tender ; " Chaonia : P. Trepida, P. Cassinea, b, deep ; T. Munda, A. Æscularia |
| ,, Poplars | S. Populi, N. Ziczac, P. Palpina, under sods and loose bark ; L. Dictæa, under sods ; T. Populeti, deep |
| ,, Willow | S. Ocellatus ; P. Palpina ; L. Dictæa, under sods, T. Gracilis |

VARIOUS TREES.—P. Bucephala, A. Putris, N. Plecta, T. Stabilis, Instabilis, Gothica, Cruda, A. Prodromaria, " Betularia, B. Hirtaria, H. Progeminaria, with many other species.

OCTOBER.

IMAGOS.]

P. Plumigera
 P. Populi, c
 C. Vaccinii
 , Spadicæ
 S. Satellitia
 D. Rubiginea

H. Croceago
 D. Tempi
 M. Oxyacanthæ
 H. Pennaria
 H. Aurantiaria
 , Defoliaria

C. Brumata
 O. Scabrina
 P. Tristana
 E. Gelatella
 C. Phryganella
 L. Messaniella

L. Trifascella
 L. Clerckella, to
 April
 D. Pimpinellæ

LARVÆ.]

| | | | |
|------------------|--|------------------|------------------------------|
| H. Hispida |Grasses plantain, &c. | C. Viticella |Vaccinium vitis-idaea |
| N. Xanthographa | Grass, h | " Albitarella | ...Ground ivy and |
| O. Sambucaria, | h Oak, elder, bramble, ivy, &c. | | marjoram |
| E. Subnotata | Chenopodium | C. Linneella, h | Under bark of lime trees |
| T. Verhuellella, | Flowers of wall rue and hart's tongue | E. Gangabella, h | Dactylis glomerata |
| G. Inopella | Flower-heads of (Paupelia, 2?) fleabane | " Tieniatella, h | Brachypodium syl- vaticum |
| " Subocellea | ...Marjoram | T. Marginea, h | ...Bramble |
| | | N. Pomella |Apple |

IMAGOS.]

P. Populi
 P. Cassinea
 X. Rhizolitha
 H. Pennaria

DECEMBER.

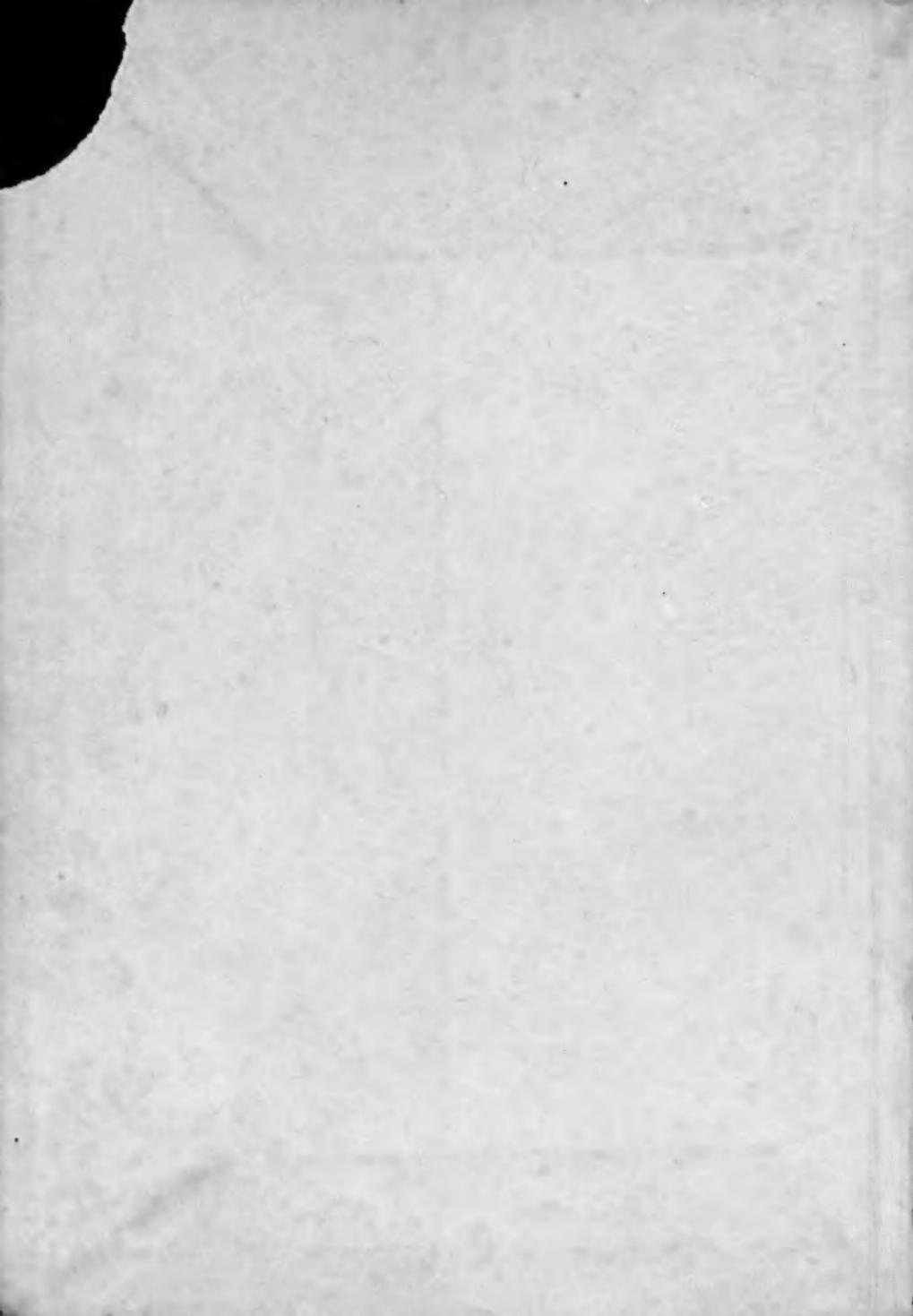
H. Defoliaria
 C. Brumata
 O. Dilutata

N. Septembrella
 L. Trifasciella
 E. Gelatella

LARVÆ.]

| | | |
|---------------------|-------------------|--------------------------------|
| G. Affinis, to Apr. | Moss on old walls | E. Rufocinerea, |
| D. Sulphurella, | | to MarchIn Holcus mollis |
| to March |Decayed wood | |

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JUN - - 1987

